

CONFLICTING INTEGRATION

The Environmental Law of the European Union

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CONFLICTING INTEGRATION

**The Environmental Law of the
European Union**

*To my Europeans
Pria & Stelio*

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LIST OF ABBREVIATIONS

ACP	African, Caribbean, Pacific (countries)
ASCI	Areas of Special Conservation Interest
BAT	Best Available Technology
BATNEEC	Best Available Technology Not Entailing Excessive Costs
BEP	Best Environmental Practice
BREFs	BAT Reference Documents
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLRAE	Europe's Congress of Local and Regional Authorities
CLRTAP	Convention on Long-range Transboundary Air Pollution
CMS	Conservation of Migratory Species
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
COREPER	Committee of Permanent Representatives
ECSC	European Coal and Steel Community
EEA	European Environment Agency
EEC	European Economic Community
EECONET	European Ecological Network
EFIS	European Forestry Information and Communication System
EFTA	European Free Trade Association
EIA	Environmental Impact Assessment
EMAS	Eco-management and Audit Scheme
EMEP	Cooperative Programme for Monitoring and Evaluation of Long-range Transboundary Air Pollutants in Europe
EPER	European Pollutant Emission Register
ESC	Economic and Social Committee
EU	European Union
HELCOM	Helsinki Convention for the Protection of the Baltic Sea
ICARM	Integrated Coastal Area and River Basin Management
ICPDR	International Commission for the Protection of the Danube River

ICPR	International Commission for the Protection of Rhine
ICZM	Integrated Coastal Zone Management
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
IPPC	Integrated Pollution Prevention and Control
ISO	International Organization for Standardization
MAP	Mediterranean Action Program
NAAQs	National Ambient Air Quality Standards
NECs	National Emission Ceilings
NEPI	New Environmental Policy Instruments
NGOs	Non-governmental Organizations
NIMBY	Not-In-My-Backyard (syndrome)
NO _x	Nitrogen Oxide
NPM	New Public Management
NSPS	New Source Performance Standards
OECD	Organization for Economic Co-operation and Development
OSPAR	Convention for the Protection of Marine Environment of the North East Atlantic
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEEN	Pan-European Ecological Network
POPs	Persistent Organic Pollutants
RBMPs	River Basin Management Plans
SACs	Special Areas of Conservation
SBTTA	Scientific Technical & Technological Subsidiary Body
SEA	Strategic Environmental Assessment
SIPs	State Implementation Plans
SPM	Suspended Particulate Matter
SO ₂	Sulfur
SPAs	Special Protection Areas
TWGs	Technical Working Groups
UN/ECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
VOCs	Volatile Organic Compounds
WFD	Water Framework Directive

INTRODUCTION

The most dramatic changes are those that happen gradually as time adds touches imperceptibly to alter things unrecognizably.

The same is true with the European Community environmental law. The law started as a simplistic device with the list of goals to be achieved. It eventually developed into a procedural instrument to control behavior. The evolutionary force behind this development is the lack of implementation among the member states of the European Union.

As the European Union matures an issue that has developed with urgency is that of actual implementation. Setting uniform standards, it is realized, does not make sense if states are to implement the standards according to their capabilities perpetuating thus an implementation deficit. It would be better, instead, to allow for differentiation on the goals but at the same time prescribe detailed procedures to ensure that the differentiated goals are achieved. This is a phenomenon called in this study *controlled differentiation*. States are allowed to differ but the constraints placed on their ability to differentiate are so extensive that they inhibit differentiation unless it is absolutely necessary.

The amount of detail and procedure included in environmental instruments could be characterized as bureaucratic. And bureaucratic it is in the good sense of the term. As the European Community moves toward becoming a Union it is gradually developing into a bureaucracy that is similar to the bureaucracy that characterizes nation-states. The development of bureaucracy of a federal state involves the cultivation of procedures that would have to apply uniformly to all member states and their subjects. These procedures tell states not only to ensure industry's compliance but how to go about ensuring such compliance. These procedures tell states what exactly to do to qualify for exceptions and financial assistance. Procedural rulemaking may involve institution building since administrative institutions are often in charge of compliance.

The Community, in its attempt to find an identity, is squeezed between two opposing dynamics. One such dynamic involves the evolution of a federal state and the other involves the progression of an international organization that accommodates the interests of states. The Community is based on international treaties that make, in a peculiar way, its constitution. Because it feels like an international organization the Community has adhered to international environmental standards many of which it

has incorporated into its constitutive instruments. Many of the environmental standards and goals the Community aspires to in the environmental field have been influenced and have influenced, in turn, international developments.

The respect for international law can have positive effects on the Community as it could facilitate integration in the European region. It could lead, however, to the fragmentation of Community when the adherence to international goals undermines the purpose of integration. The case in point involves the transfrontier waste shipments for which the Community adopted the notion of self-sufficiency, a notion antithetical to the purpose of the Community.

The notions of controlled differentiation and internationalization provide the explanatory framework of this study. On the normative side, this study cautions against three tendencies that could affect the integrative function of Community environmental law: bureaucratization, internationalism and environmentalism.

Bureaucratization involves malign and benign cases of defective administration ranging from abuse of power to the absence of proportionality when pursuing environmental objectives.

The problem with establishing bureaucracies is that they can be driven to extremes by their innate tendency to proceduralize. Relentless proceduralization could become a stumbling block to compliance as states and their subjects may at one point give up or even revolt. The subsidiarity concept that favors the devolution of power from the center has been used by states against the Commission's tendency to centralize. In addition, there have been demands for transparency, openness, efficiency and effectiveness.

The Community has attempted to address the efficiency and effectiveness concerns by adopting a managerial approach to environmental problems. Such an approach more or less admits that environmental problems cannot be resolved forever but must be constantly managed to be under control. In its managerial approach to environment the Community seems to have been influenced by the new public management approach. The new public management approach proposes the development of a public sector bureaucracy that functions as effectively and as efficiently as a private enterprise.

The quest for transparency and openness has been addressed in the environmental field with the institutionalization of the right to information

and public participation. Many directives now include provisions about when and how the public must be informed. Many directives include provisions about when and how the public should participate in decisionmaking. The rights to information and public participation, as they have been institutionalized by the Community, seem to render the European system and member states more democratic. This is because now citizens and citizen groups could be involved, if they wish to do so, in many steps of decisionmaking.

Many disturbing factors, however, shadow the promise offered by the right to information and public participation. One involves the old complaint that not everybody has the same resources to participate. Affluent groups that are able to hire the more sophisticated experts can make their point more effectively than poorer groups or simple citizens who would like to have their voices heard. This is especially the case in matters like the environment that are heavily technocratic matters and sophisticated expertise is often needed.

Another disturbing factor involves the strengthening of the role of the state. The right to information instruments assign to states the function of collection and organization of information. States must not only collect information. They must organize it and systematize it so that it is easily available for consumption. Through the back door of public participation, therefore, the state emerges as a victor. Under the claim of facilitating the democratic process the state is to collect and organize information, a significant power in any age and especially in the information age. Such state power, which has been hailed as a victory in the environmental field, would have been resisted severely in most other domains especially that of the collection of private information. Not many incentives exist to prevent states, after the precedent of environmental collection, to apply a well-developed capacity to other areas under another public interest concern.

Internationalism has already infected some of the Community's decision-making in environmental matters especially with regard to waste transfers. It is important that the waste regime be re-evaluated to ensure that it complies with the Community's integrative perspective. Similarly claims about what is allegedly preferable from a strictly environmental viewpoint should be evaluated under a critical perspective that endorses the values of humanism and integration based on the principle of solidarity.

This study includes seven chapters. Chapter one analyzes the making of Community environmental law. How it all started, the institutions involved and the legislative process. It examines the theories that have been

developed to accord legitimacy to the Community including inter-governmentalism and multi-level governance.

Chapter two analyzes the explanatory and normative framework proposed in this study. It analyzes the notion of controlled differentiation around which this study is developed and the international propensities of European Community environmental law. It provides normative suggestions for the future evolution of Community environmental law.

Chapter three examines what has been called Community's horizontal legislation. This legislation involves a number of instruments that apply horizontally to all environmental issues and sectors of the economy. It includes instruments such as the Environmental Impact Assessment Directive, the Access to Information Directive and the Eco-Management and Audit Scheme. The chapter points to the procedural character of many of these instruments as they constrain states' and industry's discretion on development and business matters. Chapter three analyzes also market-based instruments as applied to control climate change.

Chapter four provides analytical detail on the subject of air pollution. It examines the issue of transboundary air pollution as it has evolved from the 1970s till today. This chapter analyzes the effects of the international air pollution regime on Community legislation and, in turn, the influence of Community's instruments on the international regime.

Chapter five analyzes the evolution of water pollution legislation and concentrates in particular on the Water Framework Directive as an exemplification of controlled differentiation. The Chapter analyzes in detail the international developments on marine pollution and Integrated River Basin Management and compares them with Community law.

Chapter six analyzes the Community law on waste management and transfers in tandem with the international developments in the field. It points out how the self-sufficiency principle could undermine integration and sound waste management in the Community context.

Chapter seven analyzes the issue of biodiversity protection as developed in international instruments and the Community legislation. It emphasizes the European philosophy on the protection of biodiversity and the influence of international instruments on the structure of Community biodiversity laws.

CHAPTER 1. MAKING ENVIRONMENTAL LAW IN THE EUROPEAN UNION

1. A COMMUNITY OR A UNION?

The process of European integration started with a political rationale and has prospered based on an economic imperative: to avoid war, Europe needs to integrate economically.

The European Community has been the first, so far successful, attempt to unite European states economically and eventually possibly politically. The European Coal and Steel Community (ECSC)¹ was established in 1952 to be followed in 1958 by the European Economic Community (EEC),² focusing on economic matters, and the Euratom Treaty³ conceived to resolve nuclear energy issues.

The EEC presents the first attempt to systematically establish a free trade area within Europe. According to federalists, closer cooperation in economic matters is bound to “spill over” to closer cooperation in other matters and to lead eventually to a federal Europe.⁴ This is an opinion resisted by inter-governmentalists who persist in viewing the European integration as an experiment in international institution making. Inter-governmentalists detect below the European Community apparatus the perennial battle of state interests. Inter-governmentalists often associate federalism with state centralism that they view as undesirable.⁵

Actually much of the theory and actuality of European integration seems to swing back and forth these extreme articulations of the Union. Theorists of the European integration, for instance, have underlined the importance of the European Council to demonstrate the inter-governmentalist tilt, while others have focused on the decisive role of

¹ Treaty Establishing the European Coal and Steel Community (ECSC), April 18, 1951, *reprinted in* 261 U.N.T.S. 140.

² Treaty Establishing the European Economic Community (EEC Treaty or Treaty of Rome), March 25, 1957, *reprinted in* 298 U.N.T.S. 3. For an updated version of the EC Treaty as amended by the Amsterdam and Nice Treaties, *see* the official site of the European Communities available online <http://europa.eu.int/eur-lex>Treaties>.

³ Treaty Establishing the European Atomic Energy Community (Euratom Treaty), March 25, 1957, *reprinted in* 298 U.N.T.S. 259.

⁴ *See, e.g.,* E.B. Haas, *The Uniting of Europe* 12, n.7 (1958). *See also* E.B. Haas, *Beyond the Nation-State* 11 (1964).

⁵ Ludger Kühnhardt, *Towards Europe 2007. Identity, Institution-Building and the Constitution of Europe* ZEI (Center for European Integration Studies) Discussion Paper (2001).

supranational Community organs to exemplify federalist trends. The antiparathesis between inter-governmentalism and federalism lends in effect credibility to both approaches. The European Council is a strong institution based on diplomacy and could be credited for many breakthroughs of the Union in recent years including the adoption of a common currency. At the same time, the Community as it exists today would not even be possible without the supranational institutions that make the everyday decisions in favor of integration. The expansion of the Community competence to new areas and the supremacy of Community law over member states' law have been supported by Community organs – especially the Commission and the Court of Justice.⁶

Judging from the developments that followed the establishment of the Communities in the 1950s, the spillover effect seems to be working. The European Community has expanded consistently its competence to include more than economic and free trade matters. The Community today covers areas such as consumer protection, environmental protection and even marginally social policy. The Union is even fathoming the development of a common security and defense policy and the introduction of a military force.

Many of the pro-integrative steps of the Community can be traced in the evolution of the treaties that established and extended Community competence. After the initial treaties that established the three Communities many amendments have been adopted:

the Single European Act adopted in 1986 and ratified in 1987;⁷ the Maastricht Treaty (the Treaty on the European Union) signed in 1992 and ratified in 1993;⁸ the Amsterdam Treaty signed in 1997 and ratified in 1999;⁹ and the Treaty of Nice signed in 2001 and ratified in 2003.¹⁰

⁶ For an account of the Court decisions on the supremacy of the Community law and the doctrine of direct effects, see T.C. Hartley, *The Foundations of European Community Law: An Introduction to the Constitutional and Administrative Law of the European Community* 185 (1981).

⁷ Single European Act, Feb. 17, 1986, OJ L 169/1, 29.06.1989, *reprinted in* 25 I.L.M. 506 (1986).

⁸ Treaty on European Union (Maastricht Treaty), Feb. 7, 1992, OJ C 191/1, 29.07.1992, *reprinted in* 31 I.L.M. 253 (1992). For an updated version of the TEU Treaty as amended by the Amsterdam and Nice Treaties, see the official site of the European Communities available online <http://europa.eu.int/eur-lex>Treaties>.

⁹ Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and Certain Related Acts, Oct. 2, 1997, OJ C 340/1, 10.11.1997, *reprinted in* 37 I.L.M. 56 (1998).

¹⁰ Treaty of Nice amending the Treaty on European Union, the Treaties establishing the European Communities and Certain Related Acts, Feb. 26, 2001, OJ C 80/1, 10.03.2000.

The Single European Act¹¹ was the treaty that gave a new impetus to the Community after what was characterized as Eurosclerosis of the late 1970s and early 1980s and pushed decisively through the adoption of a common market. The Single European Act was the treaty that explicitly placed environmental protection under the aegis of the Community. The Single European Act introduced qualified majority voting in many areas.

The Treaty on the European Union¹² established what have been called the second pillar and third pillar of the Communities (first pillar being the EEC Treaty). The second pillar has to do with common foreign and security policy and the third pillar with police and cooperation in criminal matters. Immigration and asylum were initially placed in the third pillar but have been moved since to the first pillar.

The Amsterdam Treaty¹³ is credited for the adoption of the social protocol, the strengthening of public health¹⁴ and consumer protection policies¹⁵ and the introduction of more openness. The Treaty of Amsterdam provides that every citizen has the right to write to the institutions of the Community and to receive an answer in the same language.¹⁶ A declaration was included also on the need to simplify the European Union legislation through codification and streamlining. A controversial move at Amsterdam was the inclusion of the Schengen *acquis* into the legal order of the Union. Given that this *acquis* is hardly published, the decision to include it under the aegis of the Community intensified complaints about the opaqueness of the Community system.¹⁷

In the area of the environment the Treaty of Amsterdam made it easier for states to adopt stricter environmental standards if adopting such

¹¹ See *supra* note 7.

¹² See *supra* note 8.

¹³ See *supra* note 9.

¹⁴ Art. 152, EC Treaty, *supra* note 2.

¹⁵ Art. 153, *id.*

¹⁶ Art. 21, *id.*

¹⁷ In 1985 France, Germany, Belgium, Luxembourg and the Netherlands signed the Schengen agreement (took its name from the name of the place where it was signed) which created the Schengen area – an area within the European Union without internal borders. Gradually the Schengen area was extended to include every member state. Some of the measures adopted by the Schengen states include: the removal of checks at common borders; separation of terminals and ports between those accepting people travelling within the Schengen area and those accepting people arriving from countries outside the area; and the establishment of the Schengen Information System. A protocol attached to the Treaty of Amsterdam incorporates the Schengen *acquis* into the EC framework.

standards is based on new scientific evidence.¹⁸ It introduced also a procedure that could make more transparent the existence of a multi-speed Europe with regard to the environment.¹⁹

Finally the Nice Treaty²⁰ has prepared the European Union for enlargement. The Treaty of Nice increased the size of European institutions to accommodate enlargement. Today the European Community is comprised of fifteen states.²¹ The countries of the first enlargement may include: Romania, the Czech Republic, Hungary, Bulgaria, Slovakia, Lithuania, Latvia, Slovenia, Estonia, Cyprus and Malta. This first enlargement is bound to generate a number of complex issues including the seamless adoption of the *acquis communautaire* and institutional adaptation.²²

The frequent amendments of the treaties have created a web of a legislative text enshrined with principles but also compiled with legalistic details that are a feat even for experts to untangle. Demands, therefore, have been made for the adoption of a European Constitution that would isolate the principles and values of the Union in a single text.²³ A constitution, it is argued, would transform the European Union from a Union among states into a Union among peoples bound not by a common ethnic identity but by a common civic culture.²⁴ The European Court of Justice, a staunch supporter of integration, in the 1986 *Les Verts* judgment referred to the treaties as the constitutional charter of Europe.²⁵ Calls for a European Union constitution, though, have been resisted in many circles including the skeptics of integration but also those who prefer to see the

¹⁸ Art. 95(4)-(5), EC Treaty, *supra* note 2. The Commission has six months to decide if such standards are appropriate or if, on the contrary, they constitute "arbitrary discrimination or a disguised restriction on trade." If the Commission approves the national derogation, it has the flexibility to decide whether such derogation would be appropriate at the Community level as well. See art. 95(6)-(7), EC Treaty, *id.*

¹⁹ See *infra* note 115.

²⁰ See *supra* note 10.

²¹ The six founding members: Belgium, Germany, France, Italy, Luxembourg and the Netherlands. In 1973 Denmark, U.K. and Ireland joined. In 1981 Greece joined. In 1986 Portugal and Spain joined. In 1995 Austria, Finland and Sweden joined.

²² Atle Christer Christiansen & Kristian Tangen, *The Shadow of the Past: Environmental Issues and Institutional Learning in EU Enlargement Process*, The Fridtjof Nansen Institute, FNI Report 1/2001 (2001).

²³ Jürgen Habermas, *Why Europe Needs a Constitution*, 11 *New Left Review* 5, Sept/Oct 2001.

²⁴ *Id.*

²⁵ Parti écologist "Les Verts" v. European Parliament, Case 294/83, 1986 E.C.R. 1339.

Union as a *sui generis* phenomenon that bears little resemblance to the nation-state.²⁶

On December 15, 2001, the European Council in Laeken called for a Convention on the Future of Europe. The mandate of the convention was to draft a Treaty Establishing a Constitution for Europe. The convention completed its work in 2003 and submitted to the Council the draft Treaty Establishing a Constitution for Europe.²⁷ The draft treaty reflects “a merge and reorganization of the existing treaties in the form of a draft constitution.”²⁸ The draft constitution calls for a significant expansion of the role of the Parliament by increasing the number of areas where co-decision applies and provides methods for national Parliaments to become more involved in the Community. The Union’s competences are clarified and categorized. Part II of the draft constitution incorporates the Charter of Fundamental Rights as adopted at the Nice European Council.²⁹

2. PRINCIPLES AND VALUES

2.1. General Principles and Values

The Principle of Supremacy of Community Law and the Principle of Direct Effects

From the initial inception of the Communities two principles have been established with certainty – the principle of supremacy of Community law over member states’ law and the principle of direct effects of Community law.³⁰ The principle of direct effects establishes that Community law does not only apply to member states and their institutions but also creates directly rights and duties for the citizens of states that are actionable before courts.³¹

²⁶ And all the unpleasant memories associated with the state. See J.H.H. Weiler, *Federalism and Constitutionalism: Europe’s Sonderweg*, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper (2000). See also Joseph H.H. Weiler, Ulrich Haltern & Franz Mayer, *European Democracy and its Critique – Five Uneasy Pieces*, European University Institute, Robert Schuman Centre for Advanced Studies, EU Working Papers, RSC No 95/11 (1995).

²⁷ Draft Treaty Establishing a Constitution for Europe, July 18, 2003, CONV 850/03.

²⁸ See Report from the Presidency of the Convention to the President of the European Council at 4, July 18, 2003, CONV 851/03.

²⁹ *Id.*

³⁰ This principle has been adopted by the Court of Justice and is not referred to in the treaties, see Hartley, *supra* note 6, at 220.

³¹ One of the first decisions in which the principle of direct effects is evoked is *Van Duyn v. Home Office*, Case 41/74, 1974 E.C.R. 1337. See also Hartley, *supra* note 6, at 205.

The Five Freedoms

The Community as a free-trade area is based on five freedoms: the freedom of movement of workers, the freedom of establishment, the freedom to provide services, the free movement of goods and the free movement of capital.

The free movement of goods³² involves all trade in goods and prohibits the imposition of custom duties or other equivalent measures on the trade among member states. It promotes also the adoption of a common tariff system in relation to third states. The freedom of movement of goods, though, is not uninhibited. The treaty provides explicitly that prohibitions and restrictions on imports can be justified on grounds of public morality, public policy and security and, more important for the purposes of this study, the protection of health and life of humans, animals and plants.³³ Thus, through the backdoor of free competition, environmental considerations are entering the field of Community competence. The treaties caution, however, that legitimate trade prohibitions must not in effect constitute disguised restrictions on trade.³⁴

The Court of Justice has been a firm supporter of the free movement of goods to the point of frequently irritating local environmentalists and other parochial interests. The *Danish Bottle* case provides a characteristic example.³⁵ In an attempt to intensify domestic recycling, Denmark adopted legislation that allowed the packaging of beverages in specific containers. All other containers were not allowed and producers were required to take them back after consumption. No wonder, then, that importers of beverages into Denmark brought the case to the attention of the Commission who accused Denmark of adopting disguised prohibitions on trade. The Court agreed with the Commission and emphasized that prohibitions on trade founded on public policy reasons, including the environment, must be based on the principle of proportionality. Denmark, according to the Court, failed to follow the principle.³⁶

The free movement of goods provision is the linchpin of the negative integration on which the Community is based. Because the free movement of goods is an essentially free-market principle, though, it has been

³² Art. 23, EC Treaty, *supra* note 2.

³³ Art. 30, *id.*

³⁴ *Id.*

³⁵ Commission of the European Communities v. Kingdom of Belgium (*Danish Bottle Case*), Case 302/86, 1988 E.C.R. 4607.

³⁶ *Id.*

under attack by many interests – including small businesses, that cannot survive uninhibited competition, and environmentalists who are afraid that free trade can unleash a race to the bottom where no other standard but the price would reign.

The race to the bottom, however, never happened as deregulation at the national level made necessary re-regulation at the Community level.³⁷ Furthermore, now that tariffs are extinguished, the Court of Justice is acquiring a new sensitivity towards states' desire to be in control of their public policy.³⁸

The freedom of movement of workers is protected under the treaties³⁹ under a human rights prerogative – namely that the freedom of movement of workers must involve the abolition of any discrimination based on nationality with regard to employment, salary or other forms of compensation and all other conditions of employment.⁴⁰ The Court has been a strong supporter of the freedom of employment since the beginnings of the Community. Despite the support of the Court, the freedom of employment has yet to become a reality due to subtle discrimination not always reported to formal institutions and other barriers imposed by the lack of a harmonized social security system.⁴¹

The freedom of establishment has to do with the ability of nationals of member states to place their business anywhere they like within the Community.⁴² Restrictions on the movement of services are prohibited also within the Community.⁴³ And restrictions on the movement of capital are prohibited both among member states and between member states and third countries.⁴⁴

³⁷ See *generally Regulating Europe* (Giandomenico Majone ed., 1996).

³⁸ See Fritz W. Scharpf, *Balancing Positive and Negative Integration: the Regulatory Options for Europe*, Max-Planck Institute for Studies of Societies, Working Paper 97/8, Nov. 1997. The author notes that the Court is beginning to strike a fairer balance between the principle of undistorted competition and distributive, cultural and political aims, for instance the preservation of postal monopolies, subsidized theaters and public television.

³⁹ Art. 39(1), EC Treaty, *supra* note 2.

⁴⁰ Art. 39(2), *id.*

⁴¹ The freedom of workers remains a theoretical freedom and applies mostly to professionals. Social security provisions – that are not uniform among member states – undermine the freedom of movement of workers. The treaties provide that the Council must adopt measures in the field of social security, as they are necessary, to ensure the freedom of movement of workers. See art. 42, *id.*

⁴² Art. 43, *id.*

⁴³ Art. 49, *id.*

⁴⁴ Art. 56, *id.*

The Values of Human Rights, Democracy and the Rule of Law

The Court of Justice has developed a formidable case law on the protection of human rights even before such rights were contemplated in the treaties.⁴⁵ Today the Treaty on the European Union provides explicitly that the Union “is founded on the principles of liberty, democracy, respect for human rights and fundamental freedoms and the rule of law” – principles respected also within member states.⁴⁶ It is explicitly provided also that the Union must respect the fundamental human rights as they are guaranteed in the European Convention on Human Rights⁴⁷ and as they are derived from the constitutional traditions of member states and the general principles of Community law.⁴⁸

The treaties guarantee many human rights. It is explicitly provided, for instance, that discrimination on the grounds of nationality shall be prohibited.⁴⁹ It is provided that the Council can take appropriate action to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.⁵⁰ Other rights established firmly under the treaties include the equal pay for men and women,⁵¹ the right to association⁵² and the right to petition.⁵³

⁴⁵ The first decision that established human rights principles as founding principles is *Strauder v. City of Ulm*, Case 29/69, 1969 E.C.R. 419. In *Nold v. Commission* the Court acknowledged property rights and the right to freely pursue an economic activity. See Case 4/73, 1974 E.C.R. 491. For a good discussion of the first Court decisions, see T.C. Hartley, *supra* note 6, at 122-28.

⁴⁶ Art. 6(1), Treaty on European Union, *supra* note 8.

⁴⁷ The Court of Justice, though, has stated that the European Community cannot accede to the European Convention on Human Rights. Such accession would create a substantial change in the Community system since the EC would be entering into a distinct international order not provided for in the founding treaties. See *Accession by the Community to the European Convention for the Protection of Human Rights and Fundamental Freedoms*, Opinion 2/94, 1996 E.C.R. I-01759.

⁴⁸ Art. 6(2), Treaty on European Union, *supra* note 8.

⁴⁹ Art. 12, EC Treaty, *supra* note 2.

⁵⁰ Art. 13, *id.* After the Nice Treaty, the Council can adopt such measures by the co-decision procedure.

⁵¹ Art. 141, *id.*

⁵² Art. 137(6), *id.*

⁵³ The right to petition is useful since it could help translate human rights into practice. Every citizen of the Union has the right to petition the Parliament, to apply to the Ombudsman and can write to any of the institutions of the Community in her/his own language and receive an answer in the same language. See art. 21, *id.* The procedures to be followed to exercise the right to petition are analyzed in detail in articles 194 and 195 of the EC Treaty, *id.*

The protection of human rights is not merely declaratory. Serious sanctions are to be imposed in case of non-compliance. The treaty provides that if a state is in serious and persistent breach of human rights principles, the Council can invite the state to submit its observations. The Council can do so acting by unanimity on a proposal by the Commission or by a third of the member states and after obtaining the assent of the European Parliament.⁵⁴ After hearing out the member state the Council can decide by qualified majority to suspend certain rights deriving from the application of the treaty including the voting rights of the state in the Council.⁵⁵

The Principle of Solidarity

The principle of solidarity is provided explicitly in the treaties.⁵⁶ It means that member states must share equally and justly the burdens and benefits of integration. It means that member states must cooperate and assist each other in every aspect of Community policy. The principle of solidarity is expressed frequently in the requirement to provide financial assistance to the less advantaged regions of the Community. While one would expect the principle of solidarity to be uncontroversial, it has been challenged by specific environmental policies that promote the principle of self-sufficiency.⁵⁷

The Principle of Subsidiarity

The principle of subsidiarity is one of the most discussed principles of the Community system. The principle is mentioned both in the Treaty on European Union and the EC Treaty. The Treaty on European Union contains the democratic enunciation of the principle – that decision-making must take place as openly as possible and as closely as possible to the citizen.⁵⁸

The EC Treaty contains the procedural elaboration of the principle that is both positively and negatively stated. The negative articulation of the principle is found in the premise that the Community does not have powers except in the areas provided for by the treaties.⁵⁹ The positive articulation of the principle implies that, for matters that do not fall within

⁵⁴ Art. 7 (1), Treaty on European Union, *supra* note 8.

⁵⁵ Art. 7(2), *id.*

⁵⁶ Art. 2, EC Treaty, *supra* note 2. See also art. 1, Treaty on European Union, *supra* note 8.

⁵⁷ See Chapter 6.

⁵⁸ Art.1, Treaty on European Union, *supra* note 8.

⁵⁹ Art. 5, EC Treaty, *supra* note 2.

the exclusive competence of the Community, the Community can take action only if the results achieved by Community action are better – in scale or effects – than the results achieved by member states.⁶⁰

Thus, while the negative articulation of the principle seems to disallow Community action, the positive articulation allows for Community action when better results can be achieved. Because of its broad dimensions, the principle can be used to both allow and prohibit Community intervention in matters that are outside Community's exclusive competence.

A protocol to the Treaty of Amsterdam⁶¹ has clarified that subsidiarity does not necessarily mean the transfer of the *locus* of action from the Community level to the national or local level. On the contrary, subsidiarity necessitates for the level of action to be defined according to the circumstances of each individual case. According to the protocol, four factors must be taken into account to identify whether in an area of shared competence between the Community and member states⁶² Community action is preferable to state action. These factors include:

- transnational aspects that cannot be resolved by member states only;
- the fact that Community inaction may conflict with treaty requirements;

⁶⁰ *Id.*

⁶¹ See *supra* note 9.

⁶² The European Union and the European Community function under the principle of specific conferment of powers. None of the treaties confer to the Community and its institutions general power to take all measures to achieve the objectives of the treaties. There are areas where the Community powers are extensive and these include: transport policy, agricultural policy and the freedom of movement of workers and goods. The power of the Community, however, is limited in matters of competition law, culture and education, public health, consumer protection and environmental policy.

The Court of Justice has used certain articles of the treaties to extend Community competence to new areas. These are articles 94 (ex article 100) and article 308 (ex article 235). Article 94 states that the Council must act to further the approximation of the laws, regulations and administrative provisions of member states that affect the establishment or the functioning of the common market. The laws that affect the establishment or the functioning of the common market, though, could be numerous and diverse giving thus significant latitude to the Council.

Article 308 incorporates the principle of implied powers. Article 308 provides that if action by the Community is necessary to achieve the objectives of the common market and the treaties have not provided necessary powers, the Council – acting unanimously on a proposal by the Commission and after consulting with European Parliament – can take the appropriate measures. For the theory of implied powers and how it has been used by the Court to extend Community competence, see Hartley, *supra* note 6, at 87. For instance, the Court has ruled that the Community has implied powers to conclude agreements with third states and international organizations when this is necessary to achieve the objectives of the treaties. See Judgement of the Court in the ERTA case, Commission v. Council, Case 22/70, 1971 E.C.R. 263.

- the fact that Community action will produce benefits of scale and/or effect;
- and the need to correct distortion of competition, avoid disguised restrictions on trade and strengthen economic and social cohesion.⁶³

Even these protocol provisions, though, do not provide a bright line test for each case that the principle applies. For instance, with regard to the regulation of tobacco advertising, Community action may seem necessary since this is a matter that affects internal competition. At the same time tobacco advertising has to do with matters of public health that are under the prerogative of the state.⁶⁴

The subsidiarity principle is not a new principle developed for the purposes of the Community. The emergence of the principle has been traced to the development of the state. As such the principle is viewed as the antithetical proposition to an all-powerful state. Subsidiarity incorporates human dignity values and favors the reservation of power in the lowest possible level – ultimately the individual – thus constantly inhibiting the excessive centralization of the state.⁶⁵

The Principle of Proportionality

The principle of proportionality supplements the subsidiarity principle in that it emphasizes again that action by the Community must not go beyond what is necessary to achieve the objectives of the treaties.⁶⁶ The protocol to the Amsterdam Treaty has linked the proportionality principle to the subsidiarity principle. According to the protocol, Community action should be as simple as possible and legislative measures which give member states discretion (for instance, directives and framework directives) should be preferred to instruments that include detailed provisions (e.g., regulations).

The proportionality principle, though, leaves again a quite wide margin of discretion to the authorities in their decision of whether an action by

⁶³ See *supra* note 9.

⁶⁴ See Gráinne de Búrca, *Reappraising Subsidiarity's Significance after Amsterdam* 29-30, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 7/99 (1999).

⁶⁵ See Ken Endo, *Subsidiarity & its Enemies: To What Extent is Sovereignty Contested in the Mixed Commonwealth of Europe?*, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2001/24 (2001). See also Paolo G. Carozza, *Subsidiarity as a Structural Principle of International Human Rights Law*, 97 *American Journal of International Law* 38 (2003).

⁶⁶ Art. 5, EC Treaty, *supra* note 2.

the Community has gone beyond what is necessary to achieve the objectives of the treaties.⁶⁷

2.2. Environmental Principles and Values

Many environmental principles and values trace their roots in international environmental instruments, Community aspirations and in an environmental discourse that is not always consistent.

Frequently these principles, because of their multiple borrowings, do not point to the same direction for the evolution of Community environmental law. The juxtaposition of the preservation principle to the principle of sustainable development exemplifies the case in point. The same is true with Community demands for a high level of environmental protection tempered, though, by the cost/benefit approach and the desire to take into account the socio-economic conditions in the various regions of the Community.

Some of the principles contradict the general Community principles. For instance, the principle of self-sufficiency adopted in waste management is antithetical to the principle of solidarity established firmly under Community law.

The Polluter Pays Principle

The polluter pays principle is enunciated in the title for the protection of the environment.⁶⁸ This is a principle that is encountered in many national laws and international instruments.⁶⁹ The principle basically demands that the person who pollutes should be responsible for the damage s/he causes and must pay for that damage. Some commentators have underlined that the principle has merely a rhetoric value since most polluters will be able to pass the costs onto consumers.⁷⁰ Also, in most cases, it is difficult to find who the polluter is.⁷¹

⁶⁷ See Hartley, *supra* note 6, at 138.

⁶⁸ Art. 174(2), EC Treaty, *supra* note 2.

⁶⁹ See Patricia W. Birnie & Alan Boyle, *International Law & the Environment* 109 (1992).

⁷⁰ See John McCormick, *Environmental Policy in the European Union* 75 (2001) [hereinafter McCormick (environment)].

⁷¹ For instance, in the case of a landfill where many industries have dumped their waste it is difficult to pinpoint which company's waste has created the environmental damage. Thus the assumption is made usually that all disposers are jointly and severally liable. For issues of liability on waste transfers see generally Elli Louka, *Bringing Polluters Before Transnational Courts: Why Industry Should Demand Strict and Unlimited Liability for the Transnational Movements of Hazardous and Radioactive Wastes*, 22 *Denver Journal of International Law and Policy* 63 (1993).

The Preservation Principle vs. the Sustainable Development Principle

The preservation principle is alluded to in the first article of the title that deals with the environment.⁷² There it is mentioned that the Community policy must contribute to the objective of preserving, protecting and improving the quality of the environment. The word preservation in this context involves the task of maintaining the environment in its initial condition without human transformations. The term preservation has been associated with a strict version of environmentalism that aims to minimize any form of human intervention in the environment.⁷³

The preservation principle is immediately, however, tempered by the requirement to protect and improve the quality of the environment. Mandating the improvement of the environment is antithetical to the concept of preservation.

The principle of sustainable development – a relatively new principle in international discourse – is established as one of the founding principles of the Community. According to the treaties, one of the tasks of the Community is to promote “a harmonious, balanced and sustainable development of economic activities...[and to achieve] sustainable non-inflationary growth.”⁷⁴

The term “sustainable development” has been used extensively in the Rio Declaration on Environment and Development to denote the need to balance environmental and development considerations.⁷⁵ The original articulation of the principle is found in the Brundtland report, which stated that sustainable development means development that satisfies the needs of present generations without jeopardizing the ability of future generations to meet their own needs.⁷⁶

High Level of Protection vs. the Cost-Benefit Approach

The requirement of a high level of environmental protection and improvement of the quality of environment are presented also as the founding principles of the treaties.⁷⁷ They are mentioned also in the

⁷² Art. 174(1), EC Treaty, *supra* note 2.

⁷³ See Elli Louka, *Biodiversity & Human Rights* 1, n. 3 (2002).

⁷⁴ Art. 2, EC Treaty, *supra* note 2.

⁷⁵ Rio Declaration on Environment and Development, June 14, 1992, *reprinted in* 31 I.L.M. 874 (1992).

⁷⁶ World Commission on Environment and Development, *Our Common Future* (Brundtland Report) (1987).

⁷⁷ Art. 2, EC Treaty, *supra* note 2.

environmental title⁷⁸ but with the provision that the high level of protection must take into account the diversity of situations in the various regions of the Community. Thus again the desire to offer a high level of environmental protection is tempered by the requirements of growth since the forfeiture of growth presents the costs of environmental protection.

Overall, the high level of environmental protection expected is balanced by a number of requirements such as:

- the need to take into account scientific and technical data;
- the environmental conditions in the various regions of the Community;
- the potential benefits and costs of action or lack of action;
- the economic and social development of the Community as a whole;
- and the balanced development of Community's regions.⁷⁹

The need for a cost-benefit approach is prevalent in many pieces of environmental legislation, especially in the technology-forcing pieces. For instance, many directives refer to the adoption of best available technologies not entailing excessive costs (BATNEEC) – providing thus latitude to the industry in its determination of what does not constitute excessive cost.⁸⁰

The Integration Principle

Article 6 of the EC Treaty establishes the requirement that environmental protection policies must be integrated into the definition and implementation of all other Community policies so as to advance sustainable development. The integration of environmental concerns into other sectors acquired prominence with the Fifth Environmental Action Program.⁸¹

Environmental legislation is highly fragmented. This is because environmental law has been developed by dealing with each problem as it was presented rather than by strategically thinking about a coherent policy development. This fragmentation is certainly related to the functional segmentation of the Commission and the functional separation of the Councils.⁸² The functional departmentalization of member state public administrations has to do also with the fragmentation of the environmental policy at the member state level. Functional segmentation and departmen-

⁷⁸ Art. 174(2), *id.*

⁷⁹ Art. 174(3), *id.*

⁸⁰ See, e.g., Chapter 4, Section 2.1.2.

⁸¹ See Chapter 3, Section 1.1.

⁸² See *infra* section 3.2.

talization are not undesirable *per se*,⁸³ as they help increase efficiency in a particular policy. At their extremes, though, they prevent the creation of coherent policies.

Many states have made efforts to decrease harmful departmentalization⁸⁴ and the same is true with the Community that in 1998 with the European Summit in Cardiff initiated a process called the Cardiff process. The Cardiff process is an effort to foster the integration of environmental concerns into other sectors. Through this process different Councils (Ecofin, Internal Market, Industry, General Affairs and Fisheries) have been asked to report on how they plan to integrate environmental matters into their policymaking. But the reports of the Councils have lacked in specific details, targets and timetables. They lack also a strategic orientation.⁸⁵

Critics of the fragmented approach of the EU environmental policy have encouraged the further integration of the activities of the Commission and the Parliament. The Commission has tried to foster integration by including units dedicated to the environment in other Directorates General (DGs) and by promoting a Joint Working Group under the European Climate Change Program. An important effort to precipitate the integration of EC environmental law into other policy areas centers on the Integrated Product Policy.⁸⁶ The goal of the policy is to encourage a life cycle thinking of products and to group a diverse number of legal requirements under a single umbrella so as to facilitate product licensing.

The Prevention Principle and the Precautionary Principle

The prevention principle is based on the idea that it is better not to harm the environment than to employ measures to cure environmental disasters.⁸⁷ The preventive approach to environmental protection has been *le raison d'être* of environmental policy.

⁸³ Julia Hertin & Frans Berkhout, *Ecological Modernization and the EU Environmental Policy Integration* 9, Science and Technology Policy Research, University of Sussex (May 2001).

⁸⁴ *Id.* at 6-7. For instance, in the U.K., the environmental ministry has been merged with the transport and planning ministry (but in the Netherlands similar efforts have failed). Ministries have increased also their cooperation through inter-ministerial working groups and environmental correspondents in each ministry.

⁸⁵ The Cardiff process produced more concrete results during the Gothenburg European Council (June 15-16, 2001). During the Barcelona European Council (March 15-16, 2002) the Ecofin and the General Affairs Councils adopted strategies for the integration of environmental concerns.

⁸⁶ See Chapter 3, Section 2.2.

⁸⁷ Art. 174(2), EC Treaty, *supra* note 2.

The preventive principle has been expanded by a relatively new principle the precautionary principle.⁸⁸ The precautionary principle is based on the premise that action on environmental matters should be taken even if there is a lack of total scientific certainty, often reversing the burden of proof and placing it on those who claim that an activity is not damaging.⁸⁹

In some cases the existence of an environmental problem is evident, for instance, in the case of depletion of ozone layer. In most cases, though, especially those that have to do with the impact of hazardous substances on human health or the environment, the scientific evidence is not conclusive. In those cases, the precautionary principle advocates that some action is better than inaction.

The precautionary principle has been quite controversial since it advocates action despite the lack of scientific certainty. Taking action under such conditions could be costly or, even worse, could be proven wrong. The United States has taken a hostile approach towards the precautionary principle viewing it almost as a protectionist principle – a new non-tariff barrier to trade.⁹⁰ The European Union, at the other extreme, has transformed the principle into a constitutional principle,⁹¹ favoring a strong version of the principle.⁹²

Some commentators have attributed the hiatus between the United States approach and EC approach to the different risk perceptions between the two continents.⁹³ It is maintained that today's risk regulation in Europe in matters of environment and consumer protection resembles the 1970s approach of the United States. In the 1970s the United States approach to environmental matters was quite risk adverse while Europe's approach was much less stringent. The opposite phenomenon is observed today. The high level of risk aversion in Europe is attributed to a number of crises that have shattered the confidence of the public in the EU regulators. One

⁸⁸ The precautionary principle is included in many environmental instruments, see David Freestone, *The Precautionary Principle*, in *International Law and Global Change* 21, 31 (Robin Churchill & David Freestone eds., 1991).

⁸⁹ See Birnie & Boyle, *supra* note 69, at 98.

⁹⁰ See David Vogel, *The WHO, International Trade and Environmental Protection: European and American Perspectives* 13, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2002/34 (2002).

⁹¹ Art. 174(2), EC Treaty, *supra* note 2.

⁹² See Daniel C. Esty, *Thickening the International Environmental Regime* 5, European University Institute, Robert Schuman Centre for Advanced Studies, Policy Paper 02/8 (2002).

⁹³ David Vogel, *Ships Passing in the Night: The Changing Politics of Risk Regulation in Europe and the United States* 2, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC 2001/16 (2001).

such crisis involved the mad cow disease (BSE, bovine spongiform encephalopathy). Another crisis had to do with a health scare involving dioxin contamination of Belgian food products. The health scare resulted in the fall of the Belgian government and the removal of all food products from Belgium from all around Europe.⁹⁴

The Community seems to have tempered its strong conviction about the precautionary principle. In a recent communication, the Commission emphasized that the adoption of the principle does not mean the acceptance of zero-risk and that environmental action should be guided by the principles of proportionality, the cost-benefit approach and scientific data.⁹⁵

The Proximity Principle

The proximity principle is included in the title that deals with the environment where it is mentioned that “environmental damage should as a priority be rectified at the source.”⁹⁶ It is better, for instance, to control the discharge of hazardous substances into the water than to try to rectify the water quality later. Under this articulation, the proximity principle is another version of the preventive principle.

The proximity principle is mentioned frequently in the instruments that deal with waste management and transfers. Such instruments dictate that wastes should be disposed of as close as possible to the place of generation. Whether the principle of proximity makes good environmental sense with regard to the movement of wastes will be examined extensively in a later chapter.⁹⁷

Uniformity vs. Differentiation

The development of the Community is based upon the value of uniformity. The goal of the Community is to harmonize the laws of member states so as to delete all barriers to trade. In the area of environmental regulation uniformity seems to be equally desirable since uniform environmental rules prevent the so-called “environmental dumping” – states with less stringent environmental legislation use such legislation as a comparative advantage to trade.

⁹⁴ *Id.* at 24-27.

⁹⁵ Commission of the European Communities, Communication from the Commission on the precautionary principle 4, 9, 20, COM (2000) 1, 02.02.2000.

⁹⁶ Art. 174(2), EC Treaty, *supra* note 2.

⁹⁷ See Chapter 6.

The development of Community environmental law has been propelled by states characterized as environmental leaders that bribe the so-called environmental laggards with financial incentives to induce consensus on stringent environmental standards. In the 1980s and early 1990s Germany, Denmark and the Netherlands were seen as the environmental leaders. With the 1995 enlargement, Sweden, Finland and Austria joined the group competing for the attention of the Commission.⁹⁸ The rest of the states have mixed records or are clear environmental laggards. For instance, the Southern European states of Greece, Spain and Portugal have been viewed as the classic environmental laggards.⁹⁹ Frequently, though, the leader/laggard dynamic is an over-simplification. The matter of fact is that most states have mixed environmental records.¹⁰⁰ For instance, the United Kingdom has been an environmental laggard with regard to emission standards but an environmental leader in the adoption of the Eco-management and Audit Scheme (EMAS).¹⁰¹ Germany, the classic environmental leader, is slow to report its implementation measures to the European Union.¹⁰²

The quest for uniformity in legislation and, more specifically environmental legislation, has led to a process that some commentators have called "Europeanization." Europeanization is a multi-faceted phenomenon¹⁰³ but for the purposes of environmental lawmaking it can be identified as the adaptation of domestic institutions to the European administrative ways.¹⁰⁴

⁹⁸ See Andrienne Héritier, *The Accommodation of Diversity in European Policy-making and its Outcomes: Regulatory Policy as Patchwork*, in *Environmental Policy in the European Union: Actors, Institutions and Processes* 180 (Andrew Jordan ed., 2002). The author argues that leader states engage in "regulatory competition" by presenting proposals to the Commission that would ensure the prevalence of their legislative style or of a specific measure adopted in their domestic legislation.

⁹⁹ See Duncan Liefferink & Mikael Skou Andersen, *Strategies of the "Green" Member States in the EU Environmental Policy-making*, in *Environmental Policy in the European Union* 63, *id.*

¹⁰⁰ McCormick (environment), *supra* note 70, at 89. See also Geoffrey Pridham, *National Environmental Policy-making in the European Framework: Spain, Greece and Italy in Comparison*, in *Environmental Policy in the European Union*, 82, 97, *id.*

¹⁰¹ See Chapter 3, Section 2.1.

¹⁰² McCormick (environment), *supra* note 70, at 90.

¹⁰³ Johan P. Olsen, *The Many Faces of Europeanization* 3-4, ARENA Working Papers, WP 01/02 (2002), available online http://www.arena.uio.no/publications/wp02_2.htm. Olsen defines Europeanization as (1) the change in the territorial boundaries through enlargement; (2) the development of institutions at the level of European Union; (3) the adaptation of national structures to the EU political center; (4) and the exportation of the EU political organization beyond the EU territory.

¹⁰⁴ Christoph Knill & Dirk Lehmkuhl, *How Europe Matters: Different Mechanisms of Europeanization*, European Integration online Papers (EIoP) Vol. 3 (1999) No. 7 available online <http://eiop.or.at/eiop/texte/1999-009a.htm>.

It has been claimed that the environmental field has been characterized by a high degree of Europeanization as most legislation prescribes detailed environmental standards that member states have no option but to transpose. Even self-regulatory instruments such as the EMAS legislation¹⁰⁵ require a high-level of adaptation for states that do not have a legislative culture amenable to the adoption of such instruments.¹⁰⁶

The ease with which a state is to adopt a particular environmental instrument depends on the degree “fit” between the changes mandated by the European Union and the domestic institutional structures. Environmental legislation will be adopted quickly when the degree of fit is high and will languish when the fit does not exist.¹⁰⁷ Legislative instruments that require change in the administrative core of states are met with great resistance.¹⁰⁸ On the contrary, measures that do not require fundamental changes are adopted quickly. Many states, for instance, resisted the adoption of the Information Directive, despite its simplicity, because most states do not conceive it to be their function to provide information on demand to the public.¹⁰⁹ Also states with hierarchical structures, such as Germany, find it more difficult to adapt than states with flexible structures such as England.¹¹⁰ The process of Europeanization demonstrates that the adoption of environmental legislation has less to do with an entrenched leader/laggard dynamic and more to do with organizational learning to which some states (and their institutions) are more conducive than others.¹¹¹ Europeanization has to do with the degree of change required since fundamental changes are more vigorously resisted than incremental changes.¹¹²

¹⁰⁵ See Chapter 3, Section 2.1.

¹⁰⁶ Knill, *supra* note 104, at 5.

¹⁰⁷ *Id.*

¹⁰⁸ Christopher Knill & Andrea Lenschow, *Change as “Appropriate Adaptation:” Administrative Adjustment to European Environmental Policy in Britain and Germany* 10, European Integration online Papers (EIoP) Vol. 2 (1998) No. 1 available online <http://eiop.or.at/eiop/texte/1998-001a.htm> [hereinafter Knill 2].

¹⁰⁹ Knill, *supra* note 104, at 5.

¹¹⁰ Knill 2, *supra* note 108, 9-13.

¹¹¹ Organizational learning has to do with the ability of an organization to learn and adapt to the realities of its age. The presumption is that organizational learning is rare and that organizations are destined to repeat the *status quo* rather than change and adapt. Overall, how organizations will adapt to change depends on the precision of their legal foundation, their basis on hard law, their independence, organizational structure and fiscal autonomy. Organizations based on hard law, functionally and fiscally autonomous and single-headed attract more attempts to adaptation. See Olsen, *supra* note 103, at 14.

¹¹² Knill, *supra* note 104, at 3.

Despite the quest for uniformity, expressed by efforts to “Europeanize” domestic structures, the tendency to differentiate is still strong. This is evident in the provisions of many directives that allow for derogations for states that cannot meet environmental standards immediately. Differentiation is evident also in the adoption of procedures that may allow states to form alliances to adopt higher standards than the rest of the states. Differentiation shows up in implementation where states fail to apply effectively the transposed rules due to the lack of a supportive administrative structure or the lack of general know-how.

In other words, the quest for harmonization, no matter how strong it is, has not done away with the need for differentiation and the development of an in practice multi-speed Europe in the area of the environment. Environmental values cannot be pursued monolithically in the Community. Thus differentiation is necessary either at the level of policy prescription – different goals for different states – or at the level of implementation – compliance in transposition fails to translate into implementation on the ground.

Derogations in the area of environmental protection are allowed, therefore, upwards and downwards. States are allowed to “derogate downwards” by delaying the adoption of certain provisions if this would hamper significantly their development. At the same time, though, stringent requirements are provided to ensure that derogations have to do with the realities of development rather than with the acquisition of a comparative advantage.

The treaties allow explicitly for flexibility in the area of environmental protection. As mentioned above, the treaties provide that measures protective of the environment must take into account the environmental conditions in the various regions of the Community, the economic and social development of the Community as a whole and the balanced development of the Community regions.¹¹³

The treaties allow states to “derogate upwards.” Community promulgated environmental standards cannot prevent states from the adoption of more stringent protective measures as long as these measures are compatible with the treaties.¹¹⁴ The Treaty of Amsterdam as amended by the Nice Treaty has institutionalized the possibility of adoption of higher standards

¹¹³ Art. 174(3), EC Treaty, *supra* note 2.

¹¹⁴ Art. 176, *id.*

through the enhanced cooperation procedure.¹¹⁵ This procedure provides that eight states that intend to establish closer cooperation in one of the areas referred to in the treaties, including the environment, can place such a request with the Commission. The Commission may accordingly submit a proposal to the Council of Ministers or may refuse to submit a proposal.¹¹⁶ Authorization to proceed with closer cooperation is given by the Council of Ministers acting by qualified majority on a proposal by the Commission and after consulting with the European Parliament. In matters where the co-decision procedure applies the assent of the Parliament is required.¹¹⁷ A member state of the Council of Ministers may ask that the request for enhanced cooperation be referred to the European Council.¹¹⁸

The Council does not have total discretion in allowing closer cooperation. Instead it must take into account a series of requirements. These requirements specify that enhanced cooperation:¹¹⁹

- must further the objectives of the Union and foster the process of integration;
- must respect the treaties, the institutional framework of the Community, the *acquis communautaire* and the Schengen *acquis*;
- must not involve areas which are under the exclusive competence of the Community;
- must not undermine the internal market and economic and social cohesion;
- must not constitute a barrier to trade and a distortion of competition;
- must respect the competence, rights and obligations of states that participate in it;
- must be open to all member states;
- is a last resort measure when the Council establishes that the objectives of closer cooperation cannot be attained within a reasonable period by applying the provisions of the treaties.¹²⁰

A member state that wishes to get involved in a closer cooperation arrangement, after it is established, can do so. Enhanced cooperation is open to all member states, and the Commission and member states already participating in closer cooperation are to encourage the involvement of

¹¹⁵ See articles 43 & 44 of the Treaty on European Union, *supra* note 8. See also article 11 of the EC Treaty, *supra* note 2.

¹¹⁶ Art. 11(1), EC Treaty, *supra* note 2.

¹¹⁷ Art. 11(2), *id.*

¹¹⁸ *Id.*

¹¹⁹ See art. 43, Treaty on European Union, *supra* note 8.

¹²⁰ Art. 43(a), *id.*

other states.¹²¹ Any state that wishes to participate in enhanced cooperation shall notify the Council and the Commission of its desire to do so. Three months after the receipt of state notification, the Commission must give its opinion to the Council that would make the final decision a month later. Such a decision must be accompanied with specific arrangements that would facilitate the participation of state in enhanced cooperation.¹²²

When first discussed, during the Amsterdam negotiations, the enhanced cooperation procedure was severely criticized as creating an undesirable multi-speed Europe. In fact what was extremely feared was the institutionalization of the *de facto* existence of such a Europe.¹²³

In practice, it is unlikely that enhanced cooperation will be used extensively since for closer cooperation to happen many obstacles have to be cleared.¹²⁴ Thus the value of enhanced cooperation centers on its use as blackmailing device against laggards that refuse to proceed faster with integration. Enhanced cooperation denotes that such laggards would have to catch up eventually by incurring significant costs. Enhanced cooperation can be useful for environmental decisions that have reached a stalemate¹²⁵ or when the requirement for unanimity promotes such stalemate.

Eventually, though, blackmailing the laggards may not even work as states content with lower standards can use them to obtain a comparative trade advantage. The fear of becoming non-competitive could dissuade leaders for adopting enhanced cooperation.¹²⁶ Thus, within the confines of enhanced cooperation, a by definition differentiation procedure, the tag-of-war between harmonization and differentiation is evident – as leaders are apprehensive of the comparative advantage of laggards and laggards fear being left behind.

¹²¹ Art. 43(b), *id.*

¹²² Art. 11a, EC Treaty, *supra* note 2.

¹²³ See Stefani Bär et al., *Closer Cooperation: A New Instrument for European Environmental Policy?*, European Integration online Papers (EIoP), Vol. 4 (2000) No. 13 available online <http://eiop.or.at/eiop/texte/2000-013a.htm>.

¹²⁴ For instance, the requirement that enhanced cooperation should not constitute a disguised restriction to trade is a significant obstacle to the formation of enhanced cooperation alliances. The same is true with the requirement to respect the *acquis communautaire* that prevents the use of enhanced cooperation for the adoption of less stringent standards.

¹²⁵ For instance, environmental taxes.

¹²⁶ See Bär, *supra* note 123, at 20-21.

The Value of Cooperation

The cooperation of Community with third states and international organizations mentioned in the environmental title of treaties¹²⁷ has been facilitated by the fact that the Community has had always the conscience of a supranational organization that is to benefit from the cultivation of international law. This “international conscience” of the Community is demonstrated in the adoption of principles of international law such as the principle of sustainable development, the precautionary principle and the polluter pays principle. Also many legislative instruments have received inspiration from parallel developments in international arenas.¹²⁸

Blind faith in international environmental instruments could backfire, though, for the purposes of integration. This is because the European Union is not the classic international organization with somewhat vague objectives and goals. Instead, after all the layers of different sub-goals are removed, the single-minded goal remains – integration. In the area of waste transfers, for example, the blind transposition of international instruments has hampered the goal of integration.¹²⁹

3. INSTITUTIONS

Since the Community is something between a state and an international organization, some of its institutions present more of an international character while others resemble the institutions of member states. Despite some similarities between state institutions and Community institutions, none of the institutions of the Community is the exact copy of its domestic counterpart with the exception, perhaps, of the Court of Justice.

The European Council is the classic inter-governmental institution within the Community. It frames important policy decisions and has been responsible for many of the breakthroughs of the Union. The Council of Ministers is the ultimate decisionmaking authority in the Union but also shares the legislative power with the Parliament in an arrangement that some see as the forerunner of bicameral legislature. The Commission is viewed frequently as a non-elected executive with the power to initiate legislation. In reality, though, it behaves more as an apolitical bureaucracy with powerful implementation prerogatives. The Court of Justice is the only institution that has remained faithful to a classic domestic structure.

¹²⁷ Art. 174(4), EC Treaty, *supra* note 2.

¹²⁸ See, e.g., Chapter 7.

¹²⁹ See Chapter 6.

The Court of Justice acts like a constitutional court with the mission to integrate Europe.

The principle of separation of powers, as it is known in most modern democracies, does not apply to the Community. A system of checks and balances is developed, however, since the institutions of the Community are co-dependent in an elaborate process that forces each institution to check each other's work. No institution seems to be omni-potent in a system that some have described as multi-level governance.¹³⁰

3.1. Commission

Role

The Commission is the most controversial of Community institutions. The European public often views the Commission as a non-elected executive bureaucracy¹³¹ responsible for the regulatory burden placed on European citizens. The Commission has tried to soften this image by vowing to include more transparency and openness in its proceedings.¹³²

The Commission has significant powers. The Commission is the treaty guardian. It must ensure the smooth functioning and development of the common market.¹³³ It must ensure that the provisions of the treaties and the measures taken by Community institutions are actually applied¹³⁴ by taking, if necessary, member states before the Court of Justice.¹³⁵ The Commission has the right to implementation. It must exercise the powers delegated to it by the Council regarding implementation.¹³⁶

The Commission has the right to initiative. It presents legislative proposals to the Parliament and the Council for adoption.¹³⁷ It formulates recommendations and opinions and shapes the measures taken by the Council and the Parliament as provided in the treaties.¹³⁸ The Commission has

¹³⁰ See Kühnhardt, *supra* note 5, at 25.

¹³¹ Morten Egeberg, *The European Commission – the evolving EU executive*, ARENA Working Papers, WP 02/30 (2002) available online http://www.arena.uio.no/publications/wp02__30/htm.

¹³² See Commission White Paper, *infra* note 286.

¹³³ Art. 211, EC Treaty, *supra* note 2.

¹³⁴ *Id.*

¹³⁵ Regarding the monitoring and compliance procedures initiated by the Commission, see *infra* Section 5.

¹³⁶ Arts. 211 & 202, EC Treaty, *supra* note 2.

¹³⁷ However, both the Council (art. 208) and the Parliament may ask the Commission to draw a proposal.

¹³⁸ Art. 211, EC Treaty, *supra* note 2.

wide administrative powers and is responsible for the everyday affairs of the Community. It is responsible also for negotiating international agreements with third states and international organizations.¹³⁹

Composition and Structure

Today the Commission consists of twenty members called commissioners but, after January 1, 2005, the Commission would have twenty-seven commissioners – that means one commissioner per member state (this implies that member states with two commissioners would have to shed one commissioner).¹⁴⁰ With subsequent enlargements commissioners will serve according to a system of egalitarian rotation, which will be decided in the next inter-governmental conference.¹⁴¹

The Commission is headed by a president who is assisted by two vice-presidents.¹⁴² The president of the Commission is nominated by qualified majority voting and the nomination must be approved by the Parliament.¹⁴³ After the Amsterdam and Nice Treaties the role of the President has been strengthened. The Commission is to work under the political guidance of its president who must ensure that the Commission works consistently, effectively and on the basis of collegiality.¹⁴⁴ The agreement of the president is necessary for the appointment of the other members of the Commission.¹⁴⁵ The president can reshuffle the portfolio of commissioners, appoint the vice-presidents and ask commissioners to resign.¹⁴⁶ The power of the president to appoint, reshuffle and dismiss gives the president a lot of latitude to run the Commission as s/he wishes.

Members of the Commission are appointed by qualified majority voting of member states in agreement with the president of the Commission. The nomination must be approved by the Parliament.¹⁴⁷ Commissioners are appointed for a renewable term of five years.¹⁴⁸ Commissioners are

¹³⁹ Article 300 provides that with regard to international agreements, the Commission must make recommendations to the Council that shall authorize the Commission to open the necessary negotiations. The Council concludes the agreements after consulting with the European Parliament. *Id.*

¹⁴⁰ Today the largest member states have two commissioners namely Germany, France, Italy, U.K. and Spain.

¹⁴¹ Art. 3, Protocol to the Nice Treaty, *supra* note 10.

¹⁴² Arts. 214(2) & 217, EC Treaty, *supra* note 2.

¹⁴³ Art. 214(2), *id.*

¹⁴⁴ Art. 217, *id.*

¹⁴⁵ Art. 214(2), *id.*

¹⁴⁶ Art. 217(2)-(4), *id.*

¹⁴⁷ Art. 214(2), *id.*

¹⁴⁸ Art. 214(1), *id.*

supposed to be independent in the performance of their duties and cannot accept instructions from their national governments.¹⁴⁹

If one conceives the Commission as a protean form of government one could view the commissioners as ministers that make up a cabinet.¹⁵⁰ Each commissioner is responsible for one or multiple departments called Directorates General (DGs). Each DG is responsible for a particular policy area. Ideally each DG should report to one Commissioner but, given the number of commissioners and the number of DGs, sometimes more than one DGs are under one Commissioner.¹⁵¹ DGs consist of full-time employees but also of national experts on short-term contracts and supporting staff.¹⁵² The administration of the Commission is run by the Secretariat General.¹⁵³ Most Commission's work happens in the various sorts of expert and consultative committees creating what has been called the comitology phenomenon.¹⁵⁴

3.2. Council of Ministers

Role

The role of the Council is multi-faceted but its core function is that of the ultimate decision-maker. While the power of the Council has been restrained because of the increased role of the Parliament, some decisions are still decided by unanimity and, in such decisions, the Parliament has a mere consultative role.

The Council ensures the coordination of economic policies.¹⁵⁵ It has the right to implement that it can delegate to the Commission.¹⁵⁶ It drafts the budget on the basis of a preliminary draft submitted by the Commission.¹⁵⁷ It appoints the Court of Auditors,¹⁵⁸ the Economic and Social Committee¹⁵⁹ and the Committee of Regions.¹⁶⁰ It is the supreme administrative

¹⁴⁹ Art. 213(2), *id.*

¹⁵⁰ John McCormick, *The European Union: Politics and Policies* 102 (1999).

¹⁵¹ *Id.* at 108.

¹⁵² *Id.*

¹⁵³ *Id.* at 111.

¹⁵⁴ See *infra* note 277.

¹⁵⁵ Art. 202, EC Treaty, *supra* note 2.

¹⁵⁶ Art. 202, *id.*

¹⁵⁷ Art. 272(3), *id.*

¹⁵⁸ Art. 247(3), *id.*

¹⁵⁹ Art. 258, *id.*

¹⁶⁰ Art. 263, *id.*

authority for all officials in the Community¹⁶¹ and concludes the international agreements drafted by the Commission.¹⁶²

Composition and Structure

The Council is comprised of representatives of states at the ministerial level¹⁶³ who act as ambassadors of states to the European Community. The name “Council of Ministers” is not the best name for an institution that is comprised in effect of multiple councils. Such councils include: the general and foreign affairs council – one of the most powerful councils – and other councils that may not be as powerful – such as the health council or the research council. The environmental council is not the most powerful but it is not negligible either.¹⁶⁴ These different councils engage often in turf battles because policies made by one council are likely to affect policies made by other councils. Most industrial policies and the agricultural policy, for instance, are bound to have an effect on the environment.¹⁶⁵

The votes in the Council before the Treaty of Nice were:

Germany, France, Italy and the U.K. 10 votes;

Spain 8 votes;

Greece, Belgium, the Netherlands and Portugal 5 votes;

Austria and Sweden 4 votes;

Denmark, Ireland and Finland 3 votes;

Luxembourg 2 votes.

Qualified majority voting requires 62 votes – when the treaties require the adoption of an act on a proposal by the Commission – and 62 votes cast by at least 10 members in all other cases.¹⁶⁶

After the enlargement, and assuming that all candidate countries join the Community, the votes will be:

Germany, the U.K., France and Italy 29 votes;

Spain and Poland 27 votes;

Romania 14 votes;

Netherlands 13 votes;

¹⁶¹ See, e.g., art. 210, *id.*

¹⁶² Art. 300(3), *id.*

¹⁶³ Art. 203, *id.*

¹⁶⁴ See McCormick, *supra* note 150, at 122.

¹⁶⁵ See, e.g., Andrian Kay, *Towards a Theory of Reform of the Common Agricultural Policy* 6, European Integration online Papers (EIoP) Vol. 4 (2000) No. 9 available online <http://eiop.or.at/eiop/texte/2000-009a.htm>.

¹⁶⁶ Art. 205, EC Treaty, *supra* note 2.

Greece, the Czech republic, Belgium, Hungary and Portugal 12 votes;
Sweden, Bulgaria and Austria 10 votes;
Slovakia, Denmark, Finland, Ireland and Lithuania 7 votes;
Latvia, Slovenia, Estonia, Cyprus and Luxembourg 4 votes;
Malta 3 votes.

Thus the total votes in the Council assuming that all candidate countries join the Community by 2005 are 345.

If none of the candidate countries are accepted in the Community qualified majority will be 169 out of 237, that is 71.31 percent of the votes. If all candidate countries become members then qualified majority will be determined by 258 out of 345 votes, that is 74.78 percent of all votes.¹⁶⁷

If all candidate countries become members qualified majority would have to meet an additional requirement that has to do with the number of states voting. When an act is to be adopted on a proposal by the Commission the 74.78 percent majority must be reached by the majority of states (that is fourteen states). In all other cases, the 74.78 majority has to be achieved by two-thirds of states (that is eighteen member states).¹⁶⁸

These rather complex voting arrangements allow three big states and a smaller state to block a decision. The qualified majority voting makes possible the outvoting of large states but a safeguard is introduced to avert such an occurrence: this is the requirement to meet the 62 percent of population majority of a state if that state so requires.

The Council is assisted by a Committee of Permanent Representatives (known by its French acronym as COREPER)¹⁶⁹ that are so to speak the ambassadors of states to the EU. The COREPER is divided into COREPER I (which includes the deputy permanent representatives that deal with technical matters) and COREPER II (comprised of the permanent representatives themselves).¹⁷⁰ The COREPER is assisted by a number of committees¹⁷¹ and working groups. There are about a hundred and fifty

¹⁶⁷ See art. 3, Protocol to the Nice Treaty, *supra* note 10.

¹⁶⁸ *Id.*

¹⁶⁹ For an extensive discussion on the evolution of COREPER as a “*de facto* decision-making body,” see Jeffrey Lewis, *The Institutional Problem Solving Capacities of the Council: The Committee of Permanent Representatives and the Methods of Community* 8, Max Planck Institute for the Studies of Societies, MPIfG Working Paper 01/6 (2001).

¹⁷⁰ Art. 207(1), EC Treaty, *supra* note 2.

¹⁷¹ There are eight standing committees, McCormick, *supra* note 150, at 125.

working groups per sector including *ad hoc* working groups. The Council is assisted also by a Secretariat¹⁷² that consists of about 2,200 workers.

The Council is convened by its president on its own initiative or at the request of one of its members or the Commission.¹⁷³ When the Council meets, its work is divided into A items and B items. A items do not need to be discussed extensively at the Council because the COREPER has discussed them and agreed upon them. It is not unusual, however, during the discussions of the Council, for A items to become B items.

The President of the Council is the permanent representative of the state that holds the presidency. The office of the president is held by each state on a rotation basis that lasts six months (starting in January or July).¹⁷⁴ In practice, in order to preserve continuity, a troika – consisting of the previous, current and next president – runs the presidency. The presidency sets the agenda of the Council and moves forward the work of the Council. The presidency presents an opportunity for a state to elevate matters of national interest in the Community agenda.

The meetings of the Council and the COREPER are not public intensifying demands for more transparency within the Community.

3.3. Parliament

Role

The role of the Parliament has evolved in recent years from that of a consultative status body to that of a co-legislator. The Parliament, though, does not have the traditional powers of a legislature. It cannot introduce laws or single-handedly raise revenues. The power of initiative rests with the Commission and the Parliament shares the budgetary power with the Council.

The Parliament has been effective in its role by questioning the Commission or the Council, by generating its own reports and resolutions demanding action and by exerting pressure with regard to the implementation of EC law.¹⁷⁵

¹⁷² Art. 207(2), EC Treaty, *supra* note 2.

¹⁷³ Art. 204, *id.*

¹⁷⁴ Art. 203, *id.*

¹⁷⁵ McCormick (environment), *supra* note 70, at 115.

The Parliament has significant supervisory powers with regard to the appropriate implementation of Community law. The Parliament can call for a Committee of Inquiry at the request of a quarter of its members. The purpose of the Committee of Inquiry is to look into the maladministration of Community law in cases where no court proceedings are pending.¹⁷⁶

A related procedure involves the European Ombudsman whose purpose is to receive complaints from citizens of the Union or any person residing in the Union concerning instances of maladministration in the activities of Community institutions (with the exception of the Courts acting in their judicial capacity). The European Parliament has the power of appointment of the Ombudsman. It must be noted, though, that the Ombudsman cannot take instructions from anybody and s/he is completely independent in the execution of her/his duties.¹⁷⁷

The Parliament does not appoint the Commission – like most national parliaments appoint the executive government – but it can influence its appointment. It has some supervisory powers over the Commission. The Parliament can file a motion of censure against the activities of the Commission. If the motion of censure is carried by two-thirds majority of votes cast – representing the majority of the European Parliament – the Commission must resign as a body.¹⁷⁸ Because of the drastic effects a motion of censure may have, it is rarely used by the Parliament but remains an option of last resort.¹⁷⁹

The Parliament is a sounding board for disaffected citizens and organizations since any natural or legal person can address a petition to the Parliament on a Community matter that affects them directly.¹⁸⁰

Today, with the wide application of the co-decision procedure, the Parliament co-legislates with the Council.¹⁸¹ The Parliament plays an important role in the adoption of the budget. The Parliament can reject the budget, at which point the budget procedure must start from scratch

¹⁷⁶ Art. 193, EC Treaty, *supra* note 2.

¹⁷⁷ Art. 195(3), *id.*

¹⁷⁸ Art. 201, *id.*

¹⁷⁹ Many motions of censure have been proposed but have been defeated or withdrawn. In 1999, two hundred and thirty-two MEPs voted to remove the Commission. While this majority was much less than the required majority of four hundred and sixteen it led eventually to the resignation of the Commission. This is the infamous Sander's Commission that was accused of nepotism and maladministration of Community law. See McCormick, *supra* note 150, at 153.

¹⁸⁰ Art. 194, EC Treaty, *supra* note 2.

¹⁸¹ See *infra* Section 4.4.

or it can approve the budget. It can amend the budget also with regard to non-mandatory expenditures (both regarding their allocation and ceilings) but has a more limited role with regard to mandatory expenditures (where it can make amendments but cannot affect their ceilings).¹⁸²

Composition and Structure

The Parliament consists of representatives of peoples of member states and has been elected directly¹⁸³ since 1979.¹⁸⁴

Before the Nice amendments, the number of parliamentarians was 626¹⁸⁵ but after enlargement that number would rise to 732.¹⁸⁶ The seats in the Parliament are allocated by country, per number of citizens. For instance, Germany has one MEP for every 808,000 citizens. The representatives of the Parliament vote by absolute majority of the votes cast. Many articles of the EC Treaty, however, provide for the absolute majority of total votes – a majority difficult to meet considering that the Parliament will be comprised soon of 732 MEPs.

The Parliament is made by political parties that, once elected, form alliances.¹⁸⁷ These parties are elected, though, on a national and not on a Community agenda inciting concerns of a “political deficit” within the Union.

The Parliament is governed by its president, vice-presidents and quaestors that make the Bureau. Most of the work of the Parliament happens in the seventeen standing committees. Members of the Commission appear in front of these committees to explain the proposed legislation. The committees prepare, in response, the opinions of the Parliament on the proposals of the Commission. They prepare also amendments to the common position of the Council and basically execute all the technical groundwork for the Parliament. The Committee on Environment, Public Health and Consumer Policy is a quite powerful Committee with wide expertise in environmental matters.¹⁸⁸

¹⁸² See art. 272, EC Treaty, *supra* note 2.

¹⁸³ Art. 190 (4), *id.*

¹⁸⁴ Arts. 189 & 190, *id.*

¹⁸⁵ Art. 190(2), *id.*

¹⁸⁶ Art. 2, Protocol to the Nice Treaty, *supra* note 10.

¹⁸⁷ Such political groups include: the Christian Democrats and the European Democrats; the Socialists; the Green Group; the Left; the Union for a Europe of Nations; the Group for a Europe of Democracies and Diversities; and the Non-attached.

¹⁸⁸ See, e.g., David Judge, “Predestined to Save the Earth:” *The Environment Committee of the European Parliament*, in *Environmental Policy in the European Union* 120, *supra* note 98.

3.4. European Council

Role

The European Council was created in 1974 as a response to demands for stronger leadership in the Union. It has launched several initiatives including the various treaty amendments, the adoption of the European currency and the direct elections of the Parliament.

Composition and Structure

The European Council is comprised of the heads of states and presided by the head of state that holds the presidency. It meets every six months in summit meetings hosted by the country that holds the presidency (summit meetings usually take their name from the city in which they are held). Summits are major events covered extensively by the media. The Council is not assisted by a formal secretariat, but it is in the interest of the Community institutions and member states to make the summit meetings a success.

Decisions in summits are made by unanimity but in rare cases a formal vote would be taken. The purpose of the Council during these meetings is to: exchange views and reach consensus; give political impetus for the future of the European Union; start cooperation in new areas; further the development of a common foreign policy; and achieve policy consistency.¹⁸⁹ The purpose of the European Council, in other words, is to look at the broad policy issues and leave the details of implementation to other Community organs.¹⁹⁰

3.5. Court of Justice and Court of First Instance

Role

The purpose of the Court of Justice is the application and interpretation of Community law. Taking its role seriously as a Court for a Community of states, the Court of Justice has interpreted the law in a way that furthers integration. The most important principles of Community law, such as the principle of direct effects, supremacy of Community law and the respect for human rights, have been launched by the Court of Justice. The Court is counted as one of the institutions of the Community that has fostered

¹⁸⁹ McCormick, *supra* note 150, at 179.

¹⁹⁰ Art. 220, EC Treaty, *supra* note 2.

integration. Comparing the Court to a national institution, one could say that the Court of Justice is the constitutional court of the European Union.

Composition and Structure

Both the Court of Justice and the Court of First Instance are comprised of one judge per state.¹⁹¹ Judges are supposed to be independent and must possess the qualifications to be appointed to the judicial offices of their country.¹⁹² They are appointed by a common accord of governments of member states for a renewable term of six years but every three years there is a partial replacement of judges.¹⁹³

The Court of Justice can sit in chambers or in a grand chamber according to its own rules of procedure.¹⁹⁴ The Court of Justice is assisted by eight Advocates General but, at the request of the Court, the Council acting unanimously may raise the number of advocates general.¹⁹⁵ The advocates general provide the Court with an independent opinion before the Court makes its final decision. The advocates general are supposed to be independent and impartial¹⁹⁶ and the Court does not have to follow their opinions.

Matters under the jurisdiction of the Court of Justice include:

1. infringement proceedings. These are actions that the Commission can bring against a member state or a state can bring against another state for failure to fulfill its obligations under the treaties.¹⁹⁷
2. annulment proceedings. A state, the Council, the Commission or the Parliament can bring an action before the Court regarding the legality of acts adopted jointly by the Parliament and the Council, the Parliament, the Commission or the ECB that produce legal effects on third parties. This type of judicial proceeding includes actions based on lack of competence, infringement of an essential procedural requirement, infringement of the treaties or the misuse of powers.¹⁹⁸ The Court of First Instance has now primary jurisdiction over these cases that can be appealed before the Court of Justice.

¹⁹¹ See arts. 221 & 224, *id.* The Court of First Instance must be comprised by *at least* one judge per state, allowing for the possibility to increase the number of judges according to workload.

¹⁹² Arts. 223 & 225(3), *id.*

¹⁹³ *Id.*

¹⁹⁴ Art. 221, *id.*

¹⁹⁵ Art. 222, *id.*

¹⁹⁶ *Id.*

¹⁹⁷ Arts. 226 & 227, *id.*

¹⁹⁸ Arts. 230 & 231, *id.*

3. failure to act proceedings. If the Parliament, the Council or the Commission fail to act in violation of the treaties, states and institutions of the Community may bring an action in front of the Court of Justice.¹⁹⁹ After the establishment of the Court of First Instance, the Court of Justice has only the power of review in limited circumstances. An appeal can be pursued in the Court of Justice on points of law.
4. preliminary rulings. Preliminary rulings have to do with requests from national superior courts on the conformance of a legislative act with Community law.²⁰⁰

The Court of First Instance was established in 1989 to relieve some of the workload of the Court of Justice. The Court of First Instance today reviews most cases before they are appealed to the Court of Justice. The Court of First Instance has jurisdiction to review:

actions for annulment,²⁰¹ actions for failure to act,²⁰² actions for damages brought by a third person against servants or institutions of the Community,²⁰³ disputes between the Community and its employees,²⁰⁴ arbitration clauses included in contracts concluded by or on the behalf of the Community²⁰⁵ and preliminary rulings.²⁰⁶ The jurisdiction of the Court of First Instance is now the rule with the exception of cases that are exclusively assigned to the Court of Justice and with the exception of preliminary rulings that the Court of First Instance refers to the Court of Justice.

The Court of First Instance could be assisted by expertise judicial panels.²⁰⁷ In those cases, the Court of First instance would have the power to hear actions brought against the proceedings of these panels. The decisions of the Court of First Instance, when reviewing cases of specialized panels, would be final unless the Court of Justice decides to intervene when there is “a serious risk of the unity and consistency of Community law.”²⁰⁸

¹⁹⁹ Art. 232, *id.*

²⁰⁰ Art. 234, *id.*

²⁰¹ Art. 230, *id.*

²⁰² Art. 232, *id.*

²⁰³ Art. 235, *id.*

²⁰⁴ Art. 236, *id.*

²⁰⁵ Art. 238, *id.*

²⁰⁶ Art. 225, *id.*

²⁰⁷ Art. 225a, *id.*

²⁰⁸ Art. 225(2), *id.*

3.6. Other Institutions and Agencies

The Economic and Social Committee and the Committee of Regions

The Economic and Social Committee (ESC) has advisory status²⁰⁹ and its members are independent in the performance of their duties.²¹⁰ It counts today two hundred and twenty-two representatives but after enlargement three hundred and fifty representatives are the maximum number. Consumer and environmental groups are represented in the Committee.²¹¹ Although the consultation of the Commission with the ESC is not obligatory the ESC contains a Section for the Protection of the Environment, Public Health and Consumer Affairs.²¹² The ESC is appointed by the Council by unanimity for a term of four years and these appointments are renewable.²¹³

The Committee of Regions is a body of independent character and advisory status. It consists of representatives of regional and local bodies.²¹⁴ The members of the Committee are appointed by the Council acting unanimously and cannot exceed three hundred and fifty.²¹⁵

The Court of Auditors

The purpose of the Court of Auditors is to examine the accounts of revenue and expenditure of all Community bodies. It provides the Parliament and the Council with a statement of assurance with regard to the legality and regularity of the Community accounts.²¹⁶ The Court of Auditors is comprised of nationals from each member state and is appointed for a term of six years, which is renewable.²¹⁷ The Court does not have enforcement authority but it can publish its findings in an annual report in which it can include all the irregularities it found.

²⁰⁹ Art. 257, *id.*

²¹⁰ Art. 258, *id.*

²¹¹ *Id.*

²¹² McCormick (environment), *supra* note 70, at 122.

²¹³ Art. 258, EC Treaty, *supra* note 2.

²¹⁴ Art. 263, *id.*

²¹⁵ Art. 263, *id.*

²¹⁶ Art. 248, *id.*

²¹⁷ Art. 247, *id.*

The European Central Bank

The primary goal of the European Central Bank is to maintain price stability²¹⁸ and to control the supply of money.²¹⁹ The Governing Board of the Bank is comprised of the governors of national banks of member states.

The European Environment Agency

The European Environment Agency (EEA)²²⁰ started to function in 1993 and today it operates from its offices in Copenhagen. Its work is not restricted to the EU but covers all Europe. It collects, processes data and provides the Commission with information on the nature and extent of environmental problems. The EEA is assisted by the European Environment Information and Observation Network (EIONET). The EIONET consists of a network of national organizations that help retrieve information for the EEA and identify special issues that need to be addressed.

The IMPEL

The goal of the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL)²²¹ established in 1992 is to beef up enforcement by bringing together the national experts of member states. These experts get together in biannual meetings to exchange information under the chairmanship of DG Environment.

The adoption of Recommendation on the Minimum Criteria for Environmental Inspections²²² has had significant impact on the work of IMPEL.²²³ The recommendation asks IMPEL to designate the criteria concerning the minimum qualifications for inspectors. Only when environmental inspections are uniform among member states one could gauge with

²¹⁸ Art. 105, *id.*

²¹⁹ Art. 106, *id.*

²²⁰ See Council Regulation (EEC) No 1210/90 of 7 May 1990 on the establishment of the European Environment Agency and the European Environment Information and Observation Network, OJ L 120/1, 11.05.1990.

²²¹ The IMPEL was initially conceived as an informal meeting of Community Environment Ministers with the purpose of developing an implementation network with increasing competence. More information on IMPEL and its activities can be found at the EC official site, available online <http://europa.eu.int/comm/environment/impel>.

²²² Recommendation of the European Parliament and of the Council of 4 April 2001 providing for minimum criteria for environmental inspections in the Member States, OJ L 118/41, 27.04.2001.

²²³ See Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 20, SEC (2003) 804, 07.07.2003.

certainty the extent of violations of environmental provisions in member states.

4. THE LEGISLATIVE PROCESS

4.1. Sources of Community Law

The legal basis for Community action lies in what are called primary rules of law – that is the treaties. Secondary rules include: regulations, directives and decisions.

The difference between regulations and directives is that directives need to be transposed into the domestic order by national legislation while regulations are effective immediately and do not need an act of transposition.²²⁴ The principle of direct effects has blurred, to some extent, the distinction between directives and regulations since the Court has declared that directives have direct effects after the deadline set for their transposition even if member states have not proceeded with that transposition.

Transposition may eventually be of minimal substantial value. This is the case when the Court rules that the transposing legislation must be in conformity with the directive and that the relevant provisions of the directive have to be reproduced in exactly the same way in all member states.²²⁵

The audience of decisions may be member states or individuals.²²⁶ A decision is an executive act but certain decisions resemble in their nature directives while others resemble regulations. According to the Court, decisions can have direct effects if they directly impose a duty on or create a right for an individual.²²⁷

Other sources of Community law include soft law instruments: recommendations, opinions,²²⁸ action programs, strategies, green papers, white papers and declarations. These instruments do not have direct or binding

²²⁴ According to article 249 of EC Treaty, *supra* note 2, a regulation has general application. It is binding in its entirety and it is directly applicable in all member states. A directive is binding with regard to the result achieved but the choice of form and methods is left upon member states.

²²⁵ Hartley, *supra* note 6, at 211.

²²⁶ According to article 249 of the EC Treaty, *supra* note 2, a decision is binding in its entirety upon those to whom it is addressed.

²²⁷ Hartley, *supra* note 6, at 215-17.

²²⁸ Article 249 of the EC Treaty, *supra* note 2, provides explicitly that recommendations and opinions have no binding force.

effects on member states and their nationals but create expectations and shape the debate about the future of Community law.

4.2. Making a Proposal

The process of developing an environmental proposal at the Commission involves a large number of actors. Normally the DG Environment prepares a background paper in an attempt to identify the problem and the potential costs and benefits. The background paper then goes to an advisory Committee comprised of representatives of states. These representatives could be experts in the subject matter or could be simply government officials. These advisory meetings are a means for the Commission to test its ideas on member states and can last for twenty-four months or longer. In parallel with these meetings, the Commission holds meetings with other interested parties such as non-governmental organizations (NGOs), the academia, international organizations and the industry. At the end of the meetings the head in the relevant unit of DG Environment or some middle-ranking staff member with specific expertise drafts the proposal.²²⁹

Once a proposal has been articulated it is sent to the Secretariat General of the Commission and circulated to the cabinets of each of the Commissioners who have ten days to respond. Personal philosophies and national interests are not supposed to influence the Commissioners but sometimes play a significant role in their reaction to a proposal.²³⁰ The chefs of cabinets of each Commissioner meet every Monday to draw the agenda of the Commissioners for Wednesday. If there is no objection to a proposal, it is presented as an A point and it is usually adopted by the Commission without further debate.

What is more frequent for environmental proposals, though, is that they fail to gain universal consensus and, thus, they are sent to an *ad hoc* meeting of special chefs that includes the cabinet members responsible for the environment. During this meeting of special chefs it is not unusual for the person in charge of a proposal to redraft it as required to induce consensus. Once the meeting of special chefs has reached agreement, the proposal goes to the chefs of cabinet who, if necessary, put the proposal to a vote. The fact that a director general supports a proposal does not mean that its Commissioner would follow his/her lead.²³¹ Commissioners may decide not to endorse a proposal based on political considerations.²³²

²²⁹ See McCormick (environment), *supra* note 70, 106-07.

²³⁰ *Id.* at 109.

²³¹ *Id.* at 110.

²³² *Id.* at 111.

Within this process of giving birth to a proposal the Commission is subject to multiple pressures including pressures from NGOs. It is believed that industry NGOs weigh heavily on Commission's decisions because they have the resources and expertise to influence the Commission's proposals.²³³ Some industry associations are considered heavyweights with significant influence on Commission's decisionmaking.²³⁴ The industry lobby is not omnipotent, however. A weakness of the industry is that it is unable to take a coordinated industry-wide approach.²³⁵ Usually industry sectors have different ideas about the resolution of environmental problems. For instance, with regard to air pollution car manufacturers are willing to shift the responsibility for air pollution to gasoline producers and vice-versa.

Environmental organizations,²³⁶ because they lack resources and personnel, have less influence.²³⁷ Their nature as umbrella organizations – hosting a number of domestic organizations focused on national policies rather than European policymaking – impedes them from developing a coherent position in front of the Commission.²³⁸ Another weakness of environmental groups derives from their dependence on DG Environment. Some environmental groups receive funding from the Commission and this tames their criticism of Community's decisionmaking.²³⁹ Environmental organizations could become more effective in pursuing environmental matters if they concentrate on the implementation of existing legislation and on pinpointing violations.²⁴⁰ Environmental groups have been quite instrumental in framing the environmental agenda.²⁴¹

The role of special interests in shaping Community's policy has provoked a lot criticism. Some propose that special interests exert undue influence on the adoption of European policies. This is obvious, for instance, in the

²³³ *Id.*

²³⁴ The European Chemical Industry Council (CEFIC), the European Crop Protection Association (ECPA), the European Union of National Associations of Water Suppliers and Waste Water Services (EUREAU), the European Petroleum Industries Association (EUROPIA), the European Automobile Manufacturers Association (ACEA). *Id.* at 112-13.

²³⁵ Sonia Mazey & Jeremy Richardson, *Environmental Groups and the EC: Challenges and Opportunities*, in *Environmental Policy in the European Union* 141, 149, *supra* note 98.

²³⁶ Environmental organizations involve umbrella organizations of national environmental groups and include:

The European Environment Bureau (EEB), the oldest of environmental organizations at the European level, Friends of Earth, Greenpeace International, the World Wide Fund for Nature, the Climate Network Europe, the European Federation for Transport and Birdlife International, *see* McCormick (environment), *supra* note 70, at 117.

²³⁷ *Id.* at 118-19.

²³⁸ *Id.* at 119.

²³⁹ Mazey, *supra* note 235, at 150.

²⁴⁰ McCormick, *supra* note 150, at 121.

²⁴¹ Mazey, *supra* note 235, at 150.

formulation of Common Agricultural Policy that some view as coming directly out of the agricultural lobby.²⁴² In environmental matters, though, it is difficult to detect the prevalence of a specific interest. This is because the actors involved are multiple and often have diametrically opposed agendas.

4.3. *The Workings of the Council*

After a proposal is out of the Commission it goes to the COREPER which sends it immediately to a working group of technical experts. These working groups perform all the groundwork necessary for the functioning of the Council. The environmental working group consists of environmental experts in the permanent delegations or experts coming from the national ministries. These experts are usually familiar with the Commission's proposal since they attend the advisory meetings of the Commission. Under the chairmanship of the state that holds the presidency, the meeting begins with the requirement that each member states its position with regard to the proposal. The Commission is allowed to make a presentation and to attend the meetings of the working group. The group goes through the proposal in a detailed manner until a consensus is reached or it is decided that the matter should be sent unresolved to the COREPER. The Commission can play a decisive role on whether and when consensus would be reached since it can amend its proposals to facilitate discussions.²⁴³

All the discussions in the COREPER and the working groups are quite informal and cordial. Most members of these groups know each other well and come to expect the positions of their counterparts.²⁴⁴ Once a discussion in the working group is completed the proposal is sent to the COREPER. If the working group has not been able to agree, the proposal is listed as point II and is discussed by the COREPER, which will usually send it back to the working group for further discussions.

Once the COREPER makes the decision to pass the proposal forward to the Council, proposals on which agreement has been reached are listed as points A. Proposals for which no decision has been reached are listed as points B. If the Council cannot reach a decision on points B it can send them back to the working group.²⁴⁵

²⁴² See Andrian Kay, *Towards a Theory of Reform of the Common Agricultural Policy*, European Integration online Papers (EIoP), vol. 4 (2000) No. 9 available on line <http://eiop.or.at/eiop/texte/2000-009a.htm>.

²⁴³ McCormick (environment), *supra* note 70, at 126.

²⁴⁴ *Id.* at 128.

²⁴⁵ *Id.* at 129.

4.4. Interplay of Parliament and Council

Before the Council reaches a common position on a Commission's proposal it must send the proposal to the Parliament. The Parliament is aided in this process by different committees that study proposals. These committees may offer amendments or even propose the rejection of a proposal. The Committee on Environment, Public Health and Consumer Protection assists the Parliament in its appraisal of environmental matters.

The Parliament's position can be characterized generally as strategic. The Parliament rarely gets involved into the too technical details. It encourages NGO participation and is more active than the Council in integrating the environmental component into other matters.²⁴⁶ Actually now that the Parliament has increased powers through the co-decision procedure it is frequently approached by environmental groups that view it as a more friendly forum than the Council. One could even claim that while the Council is sensitive to industry concerns, the Parliament is more attuned to the environmental agenda generating thus an interesting dynamic in their functioning as co-legislators.

The Parliament and the Council are locked into a process that renders them co-dependent in taking legislative action. With the repeated amendment of the treaties the role of the Parliament has evolved from that of a consultative organ to that of a co-legislator.

The Parliament and the Council decide on most matters based on the cooperation procedure²⁴⁷ or the co-decision procedure.²⁴⁸ After the Treaty of Amsterdam the co-decision procedure is the rule.

The co-decision procedure involves the following steps:

1. The Commission submits its proposal simultaneously to the Parliament and the Council.
2. The Parliament delivers its opinion (first reading).
3. The Council has the following options:
 - adopt the opinion of the Parliament (an opinion that may have amended Commission's proposal) and adopt the legislative proposal (end of the legislative process);
 - or adopt a common position.

²⁴⁶ *Id.* at 130-31.

²⁴⁷ Art. 252, EC Treaty, *supra* note 2.

²⁴⁸ Art. 251, *id.*

4. The Parliament has the following options (second reading):
 - approve the common position or take no action in which case it would be deemed that the proposal is adopted in accordance with the common position;
 - reject by absolute majority the common position in which case the legislative act would be deemed as not adopted;
 - propose amendments to the common position by absolute majority. The amended text must be forwarded to the Council and the Commission. The Commission must give its opinion on the Parliament's amendments.
5. The Council has the following options:
 - if the Commission has delivered a positive opinion, adopt Parliament's amendments by a qualified majority voting;
 - if the Commission has delivered a negative opinion, adopt the amendments by unanimity.
6. If the Council cannot approve all the amendments, the President of the Council in agreement with the Parliament must within six weeks convene a Conciliation Committee (third reading).
7. The Conciliation Committee within six weeks must adopt a joint text that must be approved by the Parliament (absolute majority) and the Council (qualified majority). If the two institutions fail to adopt the proposed act the proposal is deemed to have failed.

The cooperation procedure is an abbreviated version of the co-decision procedure with a more limited role for the Parliament. According to the cooperation procedure:²⁴⁹

1. The Parliament gives its opinion on the Commission's proposal (first reading).
2. The Council taking into account that opinion adopts a common position.
3. The Parliament has the following options:
 - adopt the common position or do nothing at which point the proposal is considered adopted;
 - or
 - offer amendments by absolute majority(1);
 - or
 - reject the common position(2).
4. (1) The amendments of the Parliament go to the Commission. The Commission has the following options:
 - accept the amendments and free their road to the Council where they would be adopted by qualified majority;

²⁴⁹ Art. 252, *id.*

- reject the amendments in which case they have to be adopted by the unanimous vote of the Council.
- 4. (2) The potential rejection of the common position by the Parliament goes to the Council that now must adopt the common position by unanimity.

The rejection by the Parliament of a common position through the cooperation procedure has blocked legislative action many times because achieving unanimity in the Council is quite difficult. Today the cooperation procedure is used mainly for matters that affect the economic and monetary union.²⁵⁰

Environmental matters are generally decided by the co-decision procedure.²⁵¹ Certain sensitive environmental matters, though, are still to be decided by unanimous voting of the Council. The role of the Parliament in these matters is merely consultative.²⁵² Matters to be decided by unanimous voting involve:

- matters of fiscal nature;
- town and country planning;
- land use planning with the exception of waste management;
- the quantitative management of water resources;
- measures affecting the choice between energy sources and the general structure of energy supply.

In addition to environmental matters, the consultation procedure is used in a number of other matters in which states are reluctant to relinquish control.²⁵³ Certain other matters the Parliament can approve or disapprove but cannot amend: for instance, the appointment of the Commission and its president,²⁵⁴ accession²⁵⁵ or association agreements²⁵⁶ and the transfer of tasks to the European Central Bank.²⁵⁷

²⁵⁰ See arts. 99(5) & 106(2), *id.*

²⁵¹ Article 175(1) of the EC Treaty provides that environmental matters are to be decided in accordance with article 251 and after consulting with the Economic and Social Committee and the Committee of Regions. *Id.*

²⁵² Art. 175(2), *id.*

²⁵³ For instance, matters of competition (art. 83), taxation (art. 93), the implementation of common agricultural policy (art. 37(2)) and the liberalization of certain services (art. 52(1)). *Id.*

²⁵⁴ Art. 214, *id.*

²⁵⁵ Art. 49, Treaty on European Union, *supra* note 8.

²⁵⁶ Art. 300(3), EC Treaty, *supra* note 2.

²⁵⁷ Art. 105(6), *id.*

The treaties have established simple majority as the rule for the Council decisions.²⁵⁸ Today it seems that qualified majority is the rule and simple majority and unanimity are the exceptions.

4.5. Legitimacy of the Legislative Process

Lack of Parliamentary Legitimacy: The Democratic Deficit

The lack of effective representation of the citizens of Europe in the legislative and executive organs of the Community has created a widespread discontent that has been epitomized in the phrase “democratic deficit.” The democratic deficit is evident in all the institutions of the Community and their interactions. The Commission viewed as the most potent organ of the Community and the closest one to a government is not elected. The Council is comprised of ministers accountable to their national government and thus to their nation-state (and co-patriots) but in a very indirect way. The Parliament is comprised of representatives belonging to national parties who are elected based on a domestic rather than a European agenda. The Parliament cannot be dissolved in case of disagreements with the Council and does not appoint the Commission (but must assent to its employment). The low turnover in the elections for the Parliament provides evidence of the low legitimacy that the Parliament enjoys with the European citizens.²⁵⁹

International Legitimacy

The lack of democratic legitimacy, though, does not make the Community an illegitimate institution. The treaties on which the Community is based are legitimate because they are signed, ratified, and executed by democratic national governments that have the power to conduct negotiations with third states and to enter into international agreements.

Commentators that underline the international legitimacy of the Community view the Community as an artifact moved by the interests of national executives through the intricacies of international diplomacy.²⁶⁰ While such a view is pragmatic, it provides a fragmented picture of what the Community is or is to be. Pure international legitimacy has not legitimized

²⁵⁸ Art. 205(1), *id.*

²⁵⁹ Jean-Claude Piris, *Does the European Union have a Constitution? Does it Need One?* 46, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 5/00 (2000).

²⁶⁰ See, e.g., Andrew Moravcsik, *Why the European Union Strengthens the State: Domestic Politics and International Cooperation*, Center for European Studies, Harvard University, Working Paper Series #52, paper presented at the Annual Meeting of the American Political Science Association, New York, Sept. 1-4, 1994.

the Community in the eyes of the large populace. The behind-the-scenes machinations of states are often too obvious and generate discontent and cynicism.

Regulatory Legitimacy

For other commentators democratic legitimacy does not make much sense in the context of the Community because the Community is not a regular state.²⁶¹ The democratic deficit, according to this position, is “an integral part of the EC’s institutional design.”²⁶² The Community does not need democratic checks and balances because it has its own which prevent any of the Community organs from becoming omni-potent. The Commission’s proposals have no effect unless the Parliament and Council agree with them. The Council and the Parliament cannot take any action without a proposal from the Commission. And the Parliament and Council have to see eye to eye for a proposal to become legislation. The Community as a whole relies on states to enforce its actions.²⁶³ This intricate process provides safeguards against the usurpation of power by a single institution or a member state.

In addition, the Union does not have to be democratic because it does not have taxing and significant spending powers. It is not involved, thus, in extensive social and re-distributive policies. On the contrary, the Union’s role is regulatory. The purpose of the Union is to de-regulate the national systems in order to re-regulate at the Community level.²⁶⁴ Because of its function as a regulatory state, the Community benefits from its abstention from democratic politics. Such abstention has increased the efficiency and effectiveness of the Community and has made possible the adoption of unpopular – at the time of their adoption – decisions that have furthered integration.²⁶⁵

²⁶¹ Giandomenico Majone, *International Economic Integration, National Autonomy and Transnational Democracy: An Impossible Trinity?* 13-14, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2002/48 (2002).

²⁶² Moravcsik, *supra* note 260, at 3.

²⁶³ Jürgen Neyer, *Discourse and Order in the EU: A Deliberative Approach to European Governance*, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2002/57 (2002).

²⁶⁴ In fact the regulatory production of the European Union is quite voluminous and propelled by several forces. European firms, for instance, see the adoption of a single European rule as advantageous compared to fifteen national rules. European regulation is a way also for governments to divert attention from political sensitive situations by using Europe as a scapegoat for over-regulation.

²⁶⁵ Giandomenico Majone, *Temporal Consistency and Policy Credibility: Why Democracies Need Non-Majoritarian Institutions*, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 96/57 (1996).

The regulatory legitimacy approach contends that the Community institutions are legitimate because they deliver effective policies.²⁶⁶ Supporters of regulatory legitimacy maintain that democratic legitimacy is not the only legitimacy that institutions enjoy: legitimacy overall depends on inputs (democratic elections), or outputs (fair and efficient outputs) or processes (that must be transparent and open).²⁶⁷

Those who view the Community as a regulatory state present the Commission as an *administration de mission*. The Commission is thus encouraged to transform itself from a policy entrepreneur to an innovator with management capacity²⁶⁸ and to concentrate on real problems such as excessive regulation and over-centralization, lack of clarity and limited accessibility.²⁶⁹ The over-worked Commission is encouraged to increase its efficiency with the assistance of agencies the purpose of which would be to regulate and execute specific policies. Such agencies, it is proposed, should be modeled after the United States agencies.²⁷⁰ The creation of agencies, though, after the American model is not the ultimate solution for the representation problems that the Community faces. A fundamental problem with agencies is that they are often captured by special interests that then use these agencies for the advancement of their goals.²⁷¹ For this reason, safeguards must be included that reduce the chances of capturing

²⁶⁶ Renaud Dehousse & Giandomenico Majone, *Reforming European Governance: Options for the New Commission*, Centre Européen de Science Po, Porte d'Europe, 1999.

²⁶⁷ *Id.* at 7.

²⁶⁸ Claudio M. Radaelli, *Governing European Regulation: The Challenges Ahead*, European University Institute, Robert Schuman Center for Advanced Studies, Policy Paper No 98/3 (1998).

²⁶⁹ Alberta M. Sbragia, *The Dilemma of Governance with Government*, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 3/02 (2002).

²⁷⁰ In the United States agencies have been called the fourth branch of government. See Majone, *supra* note 265, at 8-9. Agencies of this nature do not exist today in the Community because the treaties do not provide for their creation. The most typical agencies included in the Community system involve:

Information agencies: the European Centre for the Development of Vocational Training, the European Foundation for the Improvement of Living and Working Conditions, the EEA;

Implementing agencies: the Office of Harmonization in the Internal Market (which has to do with trademarks and designs) and the Community Plant Variety Office;

Information plus Implementing agencies: the European Agency for the Evaluation of Medicinal Products (EMEA) has been allotted specific role in the approval of pharmaceuticals.

See Ellen Vos, *European Administrative Reform and Agencies* 7-8, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2000/51 (2001); See also Xénophon A. Yataganas, *Delegation of Regulatory Authority in the European Union*, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 2000/55 (2000).

²⁷¹ Vos, *id.* at 11.

such as the supervision of these agencies by other Community organs and especially by the Courts.²⁷² The Commission has been reluctant to delegate decisionmaking power to agencies because of fears that it would lose control over the regulatory process. Similarly the Court in the *Meroni* case²⁷³ has advised against the extensive delegation of powers.²⁷⁴

The regulatory legitimacy approach seems solid especially in the environmental arena where the enactment of complex regulations seems to be the rule. At the same time, though, regulatory over-activity in the field of environment must not be seen as purely technocratic. It appears that the regulatory approach promotes a conception of the Community as a valueless technocracy and thus disassociated from the ideas, ideology and pathos built in what is called a Union.²⁷⁵

Procedural Legitimacy

The procedural legitimacy approach maintains that it is the quality of decisionmaking process²⁷⁶ and not necessarily the implementation of democratic principles that legitimizes the legislative outcomes of the Community.

The procedural legitimacy position glorifies the comitology process²⁷⁷ through which decisions are made in the Commission. The committees that debate the Commission's proposals, it is argued, engage in a deliberative process based on reason and argument. Committee participants cannot justify their position by using national self-interest (as could happen with inter-state bargaining). On the contrary, they must use reasoned arguments based on Community principles that are likely to convince their counterparts. Groups that present their opinions to the Commission, for instance, must refer to the technical soundness and cost-

²⁷² *Id.* at 12-13.

²⁷³ *Meroni v. High Authority*, Case 9/56, 1958 E.C.R. 133.

²⁷⁴ Renaud Dehousse, *Misfits: The EU Law and the Transformation of European Governance*, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 2/02 (2002).

²⁷⁵ Neyer, *supra* note 263.

²⁷⁶ Christian Joerges, "Deliberative Supranationalism," *A Defense* 6, European Integration online Papers (EIoP) Vol. 5 (2001) No 8 available online <http://eiop.or.at/eiop/texte/2001-008a.htm>.

²⁷⁷ On the role that committees play in European policy-making, see *Governance by Committee: The Role of Committees in European Policy Making and Policy*, European Institute of Public Administration, Research Paper 00/GHA, May 2000.

effectiveness of their positions and must abstain from politicizing their discourse.²⁷⁸ Supporters of procedural legitimacy distinguish between arguing and bargaining. Arguing demands that participants state the reasons for their claims and that they refer to mutually accepted norms or standards. Bargaining, on the other hand, involves threats including the threat of withdrawal from bargaining.²⁷⁹

The prevalence of arguing notwithstanding, arguing does not transform the Community process into an apolitical process.²⁸⁰ The process remains political but arguing – instead of bargaining – makes it more civilized. Forcing national representatives to articulate their positions in Community terms ensures that the better argument prevails. It encourages member states to send their best experts to deliberate and decide on Community matters.

The problem with the procedural legitimacy position is that it downplays the fact that the stronger party would usually have the better argument and would eventually prevail (as it is the case with bargaining). Parties with more resources are able to hire the better experts to make their arguments for them.²⁸¹ In other words, both in bargaining and arguing, representation may be lopsided since it depends on the resources of states.²⁸² Because resources are not always available to all states not all states are heard equally and some positions may not even be presented. The involvement of lawyers and scientists in the deliberation process intimidates less sophisticated groups²⁸³ raising questions of equity. Also committee deliberations are published rarely adding to the opaqueness of the comitology process. Socialization among experts may compromise their positions,²⁸⁴ and the consensual character of decisionmaking is perceived usually as a collusion of experts behind closed doors.²⁸⁵

²⁷⁸ Beate Kohler-Koch, *Organized Interests in EC and the European Parliament* 7, European Integration online Papers (EIoP) Vol. 1 (1997) No. 9 available online <http://eiop.or.at/eiop/texte/1997-009a.htm>.

The author makes the argument that the groups that prevail are those that are effective in making arguments not those that mobilize public opinion.

²⁷⁹ See Neyer, *supra* note 263.

²⁸⁰ *Id.*

²⁸¹ *Id.* The author is not oblivious of this problem. The author argues, however, that this is less of a problem in deliberation than in bargaining.

²⁸² See Kohler-Koch, *supra* note 278, at 9.

²⁸³ Andreas Føllesdal, *The Legitimacy of Regulatory Comitology* 2, ARENA Working Papers (2000) available online http://www.arena.uio.no/events/papers/Follesdal_V-00.pdf.

²⁸⁴ *Id.*

²⁸⁵ Dehousse, *supra* note 274, at 7.

To appease concerns about the lack of openness and transparency, the Commission has identified five principles that could make procedural representation more equitable – participation, openness, accountability, effectiveness and coherence. The Commission, for instance, has proposed to initiate a process to include more localities and regions into the decisionmaking process through tripartite contracts. Such contracts would be executed between member states, regions/localities and the Commission. Member states will set up the contracts and will be responsible for their final implementation. The contracts would provide which aspect of the legislation is placed upon the local communities to implement.²⁸⁶

To relieve concerns that the comitology process is becoming too elitist, the Commission has proposed provisions that would increase the transparency of the process – including a code of conduct setting minimum standards about what to consult on, when to consult, whom to consult and how to consult effectively.²⁸⁷ Such a code of conduct should prevent the Commission from listening only to one side of an argument. In addition, the Commission has realized that it needs to streamline the about seven hundred *ad hoc* consultative groups that have been established.²⁸⁸ The Commission has proposed the publication of guidelines on the collection and use of expert advice to ensure “accountability, plurality and integrity” in the expertise used. Expert opinions must be publicized also and be made available to the public.²⁸⁹

These propositions of the Commission for change have been criticized as a French-style executive centralization – the creation of a benevolent dictatorship. The Commission’s self-description as the savior of the European ideal of integration against self-serving states has been criticized extensively.²⁹⁰

²⁸⁶ Commission of the European Communities, *European Governance: A White Paper* 13, COM (2001) 428 final [hereinafter *Commission White Paper*]. For a critique of the contract idea, see Fritz W. Scharpf, *European Governance: Common Concerns vs. The Challenge of Diversity*, Max Planck Institute for the Studies of Societies, MPIfG Working Paper 01/6 (2001). According to the Commission’s scheme, governments will be responsible for the implementation of contracts but the terms of contracts are to be defined by the Commission. The author ponders what such an arrangement could do “to the integrity of orderly national structures” since governments will have to share their authority over regional and local governments with the Commission.

²⁸⁷ *Commission White Paper*, *id.* at 17.

²⁸⁸ *Id.*

²⁸⁹ *Id.* at 19.

²⁹⁰ See Scharpf, *supra* note 286.

New Multi-Level Governance

The multi-level governance approach views the Community as a *sui-generis* institution but, at the same time, refuses to perceive the Community as a deliberative process, regulatory state or another inter-governmental forum. The Community is not there to complete procedures, promulgate rules or promote the wishes of national executives.²⁹¹ The Community is above all a community of values. The Community is a polity based on the principle of tolerance of others.²⁹²

The combination of infranational, supranational and inter-governmental elements makes the Community not a new state or government but an institution factored after the image of multi-level governance. Governance is a system of rules that functions because the majority of its participants accept it and not because it is backed up by sanctions. Governments can function even in the face of widespread opposition to their policies. Governance structures are bound to crumble under such pressure.²⁹³

Moreover, the Community is a multi-level governance because it functions at many levels. It contains institutions of supranational and inter-governmental character but it is also shaped by a network of sub-national interests that overlap and supplement governmental interests without being subservient to them.²⁹⁴

Because the Community is organized as a multi-level governance it commands a new type of legitimacy. This legitimacy is based on a number of procedural and functional checks and balances that ensure that no group prevails.²⁹⁵

²⁹¹ J.H.H. Weiler, *The Commission as a Euroskeptic: A Task Oriented Commission for a Project-Based Union: A Comment on the First Version of White Paper*, contribution to Jean Monnet Working Paper No. 6/11, Symposium: Mountain or Molehill? A Critical Appraisal of the Commission's White Paper on Governance (Jean Monnet Program, New York University School of Law, 2001).

²⁹² *Id.*

²⁹³ James N. Rosenau, *Governance, Order and Change in World Politics*, in *Governance without Government: Order and Change in World Politics* 1, 4 (James N. Rosenau & Ernst-Otto Czempiel eds., 1992).

²⁹⁴ Erik Oddvar Eriksen & John Erik Fossum, *Europe at Crossroads: Government or Transnational Governance?* ARENA Working Papers, WP 02/35 (2002) available online www.arena.uio.no/publications/wp02_35.htm.

²⁹⁵ Wolfgang Wessels and Udo Diedrichs, *A New Kind of Legitimacy for a New Kind of Parliament – The Evolution of the European Parliament* 11, European Integration online Papers (EIoP) Vol. 1 (1997) No. 6 available online <http://eiop.or.at/eiop/texte/1997-006a.htm>.

The multi-level governance approach is essentially a neo-functionalist approach. It proposes that the advancement of European integration is based not only on the interactions among states, that help them reshape their interests, but also on the modification of interests, expectations and ideas of domestic actors in ways that generate further integration.²⁹⁶

5. ENFORCEMENT

The Commission has the right to initiate infringement proceedings against states that fail to fulfill their treaty obligations.²⁹⁷ The infringement proceeding may involve:

- violations of treaty provisions, regulations and decisions;
- non-transposition of directives;
- incorrect transposition of directives (for instance, laws that conflict with the goals of a directive or the incomplete transposition of a directive);
- lack of compliance with directives (for instance, sub-state actors do not comply with the directive);
- lack of compliance with ECJ judgments.

The Commission gets its information about non-compliance from different sources, the simplest being the lack of communication by a member state on transposition; petitions to the Parliament; complaints by private actors (for instance, environmental groups or citizens).

One would expect that the information that the Commission gets from environmental groups is reliable and that it would lead to many enforcement proceedings. Unfortunately, this is not the case. The Commission has found that the number of complaints it receives has more to do with the political culture of a state and less with its environmental record. Many times complaints lead to no infringement proceedings because of the lack of a specific legal basis.²⁹⁸

Infringement proceedings start with a formal letter of notice in which the Commission describes the issue and asks the state to give its position. If the matter is not resolved at this stage, the Commission has the option to open infringement proceedings by issuing a reasoned opinion. In the reasoned opinion the Commission states the nature of the violation and what the member state can do to rectify. The state has a month to respond.

²⁹⁶ Linda Cornett & James A. Caporaso, "And Still it Moves!" *State interests and Social Forces in the European Community*, in *Governance without Government* 219, 239-40, *supra* note 293.

²⁹⁷ Art. 226, EC Treaty, *supra* note 2. Under article 227 member states have a similar right but they rarely exercise it. *Id.*

²⁹⁸ McCormick (environment), *supra* note 70, at 140.

If the state does not respond within a month or otherwise negotiations fail, the Commission has the option of bringing the case before the Court of Justice.

The infringement proceedings have a self-enforcing character as the Commission by initiating the proceedings makes clear that it is willing to go through with enforcement if necessary. Therefore, most member states try to negotiate a settlement with the Commission before the case goes before the Court of Justice. Most cases actually settle before they reach the Court of Justice.²⁹⁹ Of all the infringement proceedings generated between 1978 and 2000 only 38 percent reached the state of reasoned opinion and only 11 percent were referred to the Court of Justice.³⁰⁰ In case a member state refuses to comply with a Court of Justice decision the Commission can propose economic sanctions. The purpose of sanctions is punitive. Sanctions can range from € 6,000 to € 264,000 per day.

In addition to the self-enforcing character of infringement proceedings, the Commission can entice compliance by adding to its legislative arsenal self-enforcing instruments and by financing desirable activities. The Community has already adopted a number of self-enforcing instruments and has made financing available. Such financing in the area of the environment is provided by various sources including the LIFE fund.

In addition to the issue of “formal” implementation, a matter that has perplexed policymakers involves the “real” implementation of Community legislation on the ground. At issue here is not the mere transposition of directives but their actual implementation once they become laws. There is an overall perception that there exists an “implementation deficit” in the application of Community law. This deficit has been blamed on:

- the involvement of a large number of authorities – national, regional and local;
- the quantity and complexity of laws involved;
- the distribution of costs for different adjustments;
- the discretion involved in implementation;
- the weak administrative structures of states;
- the lack of qualified personnel;
- the lack of cooperation between different departments;³⁰¹
- the existence of many constituencies that increase the complexity of decisionmaking;

²⁹⁹ Jonas Tallberg, *Paths to Compliance: Enforcement, Management, and the European Union*, 56 *International Organization* 609 (2002).

³⁰⁰ *Id.*

³⁰¹ *Id.*

- the lack of a central enforcement agency;
- and the incompatibility of priorities of member states (the leader/laggard dynamic).³⁰²

Most commentators seem to agree that the implementation deficit has less to do with willful non-compliance and more to do with the lack of capacity.³⁰³

The implementation deficit in environmental matters seems to be quite large. The Commission has noted particularly the problematic implementation of directives that require a change in the way public administration works in member states. For instance, the Access to Information Directive has not been implemented consistently because of the refusal of public authorities to provide information, the slow response to requests for information, the broad interpretation of exceptions and the unreasonably high charges.³⁰⁴ Similar issues are presented in the implementation of the Environmental Impact Assessment Directive where the Commission has pointed out that environmental impact assessments lack quality and are not taken seriously by member states.³⁰⁵

In the area of air pollution, most infringement proceedings derive from the failure to transpose directives.³⁰⁶ In the area of water pollution infringement proceedings account for about a quarter of the infringement proceedings and are of various nature.³⁰⁷

An argument has been made that the implementation deficit may be an illusion and that data do not exist that would help us make an assessment on whether there is a systematic lack of implementation of Community law. All legal systems suffer from some lack of compliance and, from the evidence at hand, it is hard to judge whether the lack of compliance in the member states of the Community is pathological or within what should be expected.³⁰⁸

³⁰² McCormick (environment), *supra* note 70, at 148.

³⁰³ See, e.g., Ingmar Von Homeyer, *Enlarging the EU Environmental Policy* 15, paper prepared for the Environmental Studies Workshop "Environmental Challenges of the EU Eastern Enlargement" organized by the Robert Schuman Centre at the European University Institute, Florence, Italy, May 25-26, 2001.

³⁰⁴ Commission of the European Communities, *Seventh Annual Report on Monitoring the Application of Community Law 1999*, at 63, COM (2000) 92 final [hereinafter 1999 Report].

³⁰⁵ *Id.* at 65.

³⁰⁶ *Id.* at 66.

³⁰⁷ *Id.* at 73.

³⁰⁸ See Tanja A. Börzel, *Non-Compliance in the European Union: Pathology or Statistical Artefact?* 8(5) *Journal of European Public Policy* 803 (2001).

The fact that the lack of implementation may not be pathological does not diminish Community's obligation to make implementation easier for member states. To this end many proposals have been made:

- that adequate time and resources must be made available;
- that the objectives of legislation must be understood and agreed upon;
- that tasks should be listed in the right sequence;
- that communication and coordination must exist among the co-implementing authorities;
- and that possible implementation failures should be investigated at the level of policy formulation.³⁰⁹

6. EVOLUTION AND FUTURE DIRECTION

Evolution

Some divide the evolution of environmental policy into phases that coincide with important events in the history of the European Community.³¹⁰ The first phase is the period between 1957 and 1972. This is the period where the Communities focused on the development of a common market. Matters of environment were of secondary importance and were approached through the creative interpretation of articles 100 and 235 (today articles 94 and 308).³¹¹

The second phase has been called environmental revolution and spans the period between 1973 and 1986. During this period the legal justification for taking environmental action remained articles 100 and 235 (today articles 94 and 308) but there was a heightened awareness that environmental problems are here to stay and that they must be dealt with effectively. The impetus for this new thinking was given by the 1972 Conference on the Human Environment.³¹² Countries like Germany and the Netherlands started to adopt stringent environmental laws that could act as impediment to free trade. The Community had to act. It created a small Environment and Consumer Protection Service within DGIII (Directorate General, responsible for industrial policy), an Environmental Committee within the European Parliament and drew the first environmental action program.³¹³

³⁰⁹ McCormick (environment), *supra* note 70, at 148.

³¹⁰ Andrea Lenschow, *Transformation in European Environmental Governance*, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 97/61 (1997).

³¹¹ McCormick (environment), *supra* note 70, at 44.

³¹² See Stockholm Declaration of the United Nations Conference on the Human Environment, June 16, 1972, *reprinted in* 11 I.L.M. 1416 (1972).

³¹³ McCormick (environment), *supra* note 70, at 46.

The third phase covers the period between 1987 and 1992. This is the period where the Community establishes legal competence with regard to the environment through the 1987 adoption of the Single European Act. This period witnessed the creation of the European Environment Agency. During this period the Commission got more involved in international negotiations and the Community's ability to finance environmental programs was strengthened.³¹⁴

The fourth phase that spans between 1993 and today involves the consolidation of environmental policies. During this period, the Amsterdam Treaty has facilitated decisionmaking in environmental matters and there is an increased awareness of the importance of integrating environmental goals into the different economic sectors. During this period one can see also the intensified adoption of self-regulatory instruments the purpose of which is not to command and control compliance but to entice compliance.³¹⁵

With respect to the adoption of self-regulatory instruments, the Community policymaking is divided frequently into the pre-1992 and the post-1992 eras. The pre-1992 environmental policy is the command-and-control policy that focused on a single medium (e.g., air, water). The regulation of environmental matters during this period was based on the requirement not to impede free trade (negative integration) by harmonizing national measures. The DG Environment was a weak organization and member states often disagreed on what environmental measure is appropriate. During this period of negative integration many seemingly stringent instruments were adopted that allowed for significant latitude in their interpretation.³¹⁶

At first glance, the post-1992 environmental policy does not seem to have changed substantially since most command-and-control legislation has remained in place despite multiple amendments. What has changed, though, is the realization that command-and-control legislation needs to become procedural legislation and to command not only "what to do" but also "how to do it." There is a general realization also that command-and-control may not be the best way to manage environmental problems and that self-regulatory and incentive-based instruments must be used more widely.³¹⁷

³¹⁴ *Id.* at 55-59.

³¹⁵ *Id.* at 61-68.

³¹⁶ See Andrew Jordan et al., *European Governance and the Transfer of "New" Environmental Policy Instruments in the European Union*, paper prepared for the 2001 European Community Studies Association Biannual Conference, in Madison, Wisconsin, May 30-June 2, 2001.

³¹⁷ *Id.*

Future Direction

The dreams about the future of the Community abound and include:

- the development of a genuine common defense and security policy with a European Union Chief of Staff, a European Union army and a European Union Commissioner of Defense;
- an immigration policy that establishes common criteria for immigration and a visible European Border Force;
- the harmonization of taxes and the establishment of a European Union tax;
- the simplification of the treaty structure through the adoption of a constitution and a text with specialized articles;
- the functioning of the Council as a Senate in the form of a bicameral legislature;
- the transformation of the Parliament into a real legislature with a right to initiative now reserved for the Commission;
- more democratization, participation and openness.³¹⁸

Of course this is not a dream that everybody shares in all its aspects since it approaches the Community more or less as a new state. It is difficult at this point to ascertain whether such a dream will be realized or the Community will move into other directions. Despite attitudes that caution against deliberate attempts to shape the future of the European Union after the icon of the federal nation-state, the debate about the *finalité politique* of the European integration is bound to continue as vigorously as ever.³¹⁹

The future direction of environmental law, as examined in the following Chapter, points to the gradual development of a federal Europe with all the risks and promises that such an undertaking entails.

³¹⁸ Kühnhardt, *supra* note 5, at 12-25.

³¹⁹ See, e.g., Tanja A. Börzel & Thomas Risse, *Who is Afraid of a European Federation? How to Constitutionalize a Multi-Level Governance System*, in *What Kind of Constitution for What Kind of Polity? Responses to Joschka Fischer* 45, Jean Monnet Program, New York University School of Law (Christian Joerges, Yves Mény & J.H.H. Weiler eds., 2000).

CHAPTER 2. A FEDERAL ENVIRONMENTAL LAW FOR EUROPE

1. A FRAMEWORK FOR EC ENVIRONMENTAL LAW

Explanatory Framework

The purpose of this study is to provide an explanatory framework for the evolution and structure of the European Union environmental law. To an untrained eye, the European Union environmental law may seem like a series of rules with no apparent structure. The evolution of environmental law seems to be disorderly save some chronological *raison d'être* as environmental problems rear their ugly face. This lack of structure has to do with the intuitive development of environment law that was more reactive, responding to needs as they developed, than planned from the beginning. Behind this apparent lack of structure, though, a certain pattern emerges and a rationale for the evolution of environmental law. This study documents this rationale and explains it.

Normative Framework

- *Integration*

On the normative side, this study provides suggestions for the future development of environmental law. Since the development of environmental law has become more deliberate, this study provides guidelines that must be taken into account ideally for the future delineation of the European Union environmental law. The purpose of the guidelines involves the incorporation of principles that enhance the integrative function of environmental law. The principle of solidarity is such a principle. This study is based on the idea that the pursuit of a unified Europe founded on the principle of solidarity should be the guiding precept for the accomplishment of various environmental objectives and the articulation of a coherent environmental policy. This integrative bias penetrates all this study and the proposed rules for the future development of environmental law.

- *Human Rights*

Underlying this integrative bias, there is a view of environmental law as a system of rules whose primary purpose is to serve human needs and to lead to the betterment of human life. Since what is good for people and

what may be good for the environment¹ are often confounded in environmental matters, this study adopts a view of environmental law that centers on the respect of human dignity and human rights. This study distinguishes between a pragmatic understanding of environmental law based on human dignity and human rights and a view of environmental law based on a “protection of environment for the environment” rationale or on the moral character of environmental protection.

While most environmental instruments rarely endorse a purist view of environmental protection, this view often creeps into the phraseology and implementation of environmental law with lamenting implications for the poor of the developing world.²

The purpose of the European Union environmental law, as viewed in this study, is pragmatic: to protect human health and, consequently, manage the environment to serve human needs. Environmental management must not become a stumbling block to integration and must not isolate the European Community from its partners, especially those in developing countries.

- *EC as a Value-oriented Bureaucracy*

This study is based on a view of the Community as an organization that has will of its own that is frequently independent and certainly more than the sum of will of member states. This study adopts an institutional approach to the organization of the European Union. It is recognized here that the European Community is shaped by state interests and other interests presented by non-governmental organizations (NGOs) and international organizations.³ These interests, though, eventually melt together into the will of an organization called European Community. While the existence of this independent will is less apparent in some areas of the Union, in the environmental policy the function of the Community as an independent institution is evident.

The European Union as an independent organization is evolving into a federal bureaucratic structure – in the good sense of the term “bureaucratic.”⁴ The purpose of this organization is to minimize friction between member states and other stakeholders and to administer effective and

¹ See Elli Louka, *Biodiversity & Human Rights* 42 (2002).

² *Id.* at 9-11.

³ See Anthony Zito, *Task Expansion: A Theoretical Overview*, in *Environmental Policy in the European Union: Actors, Institutions and Processes* 159 (Andrew W. Jordan ed., 2002)

⁴ That is organizing rather than burdening.

efficient rules⁵ that would lead eventually to the furtherance of the goal of integration.

This view of the European Union as an independent regulatory organization coincides more or less with the conception of the EC as a regulatory state.⁶ In the area of the environment what the European Union has done consistently all through its progression is to regulate and re-regulate environmental matters in what sometimes appears to be “relentless regulation.” Relentless regulation, though, does not mean the endorsement of a valueless regulatory technocracy. Integration fostered by the principle of solidarity, human rights and the search for the proper balance between environmental and development considerations is the type of integration pursued by Community action.⁷

2. EC ENVIRONMENTAL LAW AS PUBLIC LAW

2.1. *Evolutionary Incentive*

At first encounter, the European Community environmental law seems extremely detailed, full of scientific jargon and difficult to penetrate. Given the level of specificity that characterizes European Community environmental law, no wonder many commentators have concluded that the European Community, instead of prescribing laws, prescribes regulations and that it should refrain from doing so. According to the principle of subsidiarity,⁸ it is justifiably argued, the European Community should prescribe the goals, the guidelines and states would have to apply the specific details. Otherwise, whatever would remain of state sovereignty?

Despite these admonitions, though, that are expressed also by Community organs,⁹ the European Union environmental law continues to be extremely detailed. Even Framework Directives contain a significant amount of regulatory provisions rather than guidelines. As Framework Directives are fleshed out by Daughter Directives, the level of specificity increases. The question then becomes why the European Community, despite a high level of awareness that regulatory intervention is not desirable, continues to generate it with abundance.

⁵ This perception of state as an instrument of social engineering aimed to minimize friction and waste has been prevalent in the late twentieth century, see J.M. Kelly, *A Short History of Western Legal Theory* 399 (1992).

⁶ See generally *Regulating Europe* (Giandomenico Majone ed., 1996).

⁷ See Chapter 1, Section 2.

⁸ See Chapter 1, Section 2.1.

⁹ See, e.g., Commission of the European Communities, *European Governance: A White Paper COM (2001) 428 final*.

The answer, this study contends, lies in the experience gained from the implementation of the European Union environmental law.

The first attempts to enact environmental legislation in Europe were goal-oriented. The first directives on the environment set the goals that member states had to meet and left the means of achieving them to states. As such the approach made intuitive sense. It makes sense to have states follow common goals and to leave the particular conditions of implementation to state discretion. Many states, however, have failed to follow up with implementation. While many directives were transposed into national legislation, they were not implemented on the ground. As a result the environment in Europe did not improve, at least significantly.¹⁰

The causes for this lack of real implementation are multiple and complex. As many commentators have noted, the roots of implementation deficit do not lie so much in neglect but in the lack of capacity, roadblocks at the regional level and the lack of know-how.¹¹ Many states lack the strong administrative structures that would help translate law into practice. Even administratively sophisticated states are sometimes at a loss on how to implement legislation. The different administrative traditions and styles make matters worse since the command-and-control style of the 1970s and 1980s was associated with a particular administrative tradition that other states perceived as foreign.¹² Notorious as an example are the different administrative traditions of the United Kingdom and Germany.

The lack of implementation has made the Community inventive. When instruments are short of achieving the goals of policymakers, policymakers have either to modify their goals or use new methods to reach their goals. In the European Community one sees both trends – the amendment of goals that are now much more differentiated according to the abilities of each member state to perform and the invention of new processes that would constrain a state's ability to free-willingly interpret the law.

2.2. Environmental Issues as Management Issues

The lack of implementation brings to the fore an aspect of environmental policymaking that is occasionally pushed aside: that environmental

¹⁰ According to the European Environment Agency, policy measures prescribed have not improved the environment significantly. Environmental policies have led mostly to "end-of-pipe" measures that have resulted in peripheral improvements. See European Environment Agency, *Europe's Environment: The Second Assessment* (1998).

¹¹ See Chapter 1, Section 5.

¹² See Chapter 1, Section 2.2., on the value of Uniformity vs. Differentiation.

problems are often the type of problems that defy immediate resolution. Environmental problems, instead, need constant management. And in most cases, if industrialization were to proceed, environmental problems would not be eliminated totally, at least in the foreseeable future, but would be controlled and hopefully be reduced.

This view of the environment as a management issue is not new. Humans always faced environmental challenges to which they have tried to apply management concepts rather than “solve” them once and for all. It took time, though, to apply the same principle to environmental legislation as most rules initially prescribed over-arching goals demanding zero pollution.¹³

It can be seen now at the Community level that a conscious adoption of a managerial approach to environmental pollution is a fact. The managerial approach to pollution is evident in the number of procedures that have been adopted which are essentially know-how procedures – how to best assess and handle an environmental problem. It seems as if the implication is made that desirable results cannot be achieved without the application of common and effective managerial procedures.

The desire to adopt common and effective management procedures to control environmental problems could be credited somewhat to the New Public Management (NPM) approach. The New Public Management approach has tried to apply the concepts of efficiency and effectiveness prevalent in the private sector to public sector administrations. This approach emphasizes efficiency and effectiveness in public administration and presents the pursuit of efficiency and effectiveness as important as the rule of law.¹⁴

The New Public Management approach emphasizes a view of citizen as customer whom public agencies must cater to. The NPM advocates the development of semi-autonomous agencies that behave like private enterprises with an emphasis on the bottom line. It emphasizes the development of explicit standards and measures of performance and the shift from bureaucratic procedures to rules that are based on output

¹³ For instance, the goal for the discharges of dangerous substances into the groundwater was zero. See Chapter 5, Section 2.1.1., on the Dangerous Substances Directive.

¹⁴ See Christophe Demmke, *Towards Effective Environmental Regulation: Innovative Approaches in Implementing and Enforcing European Environmental Law and Policy*, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 5/01 (2001).

controls by using quantitative indicators of performance.¹⁵ The NPM proposes essentially a managerial approach to public administration that is antithetical to the prevalent legal-bureaucratic model.¹⁶ The New Public Management approach has been developed by the breeding of two different ideas: one has been called the “new institutional economics” – which propagates a view of politics as a market phenomenon – and managerialism that favors the transfer of business administration concepts to the public sector.¹⁷

The New Public Management approach has been criticized from different perspectives. For instance, it has been argued that competitiveness is not something that should characterize public organizations. On the contrary, public organizations should foster coordination and cooperation between public structures, voluntary groups and lobbying organizations.¹⁸ To further this critique, public organizations should not cater to the bottom line but to the achievement of fairness and equality. Public organizations must be inspired by the idea of impartiality and a sense of accountability to the public that is ingrained in politics. Furthermore, the citizen should not only be viewed as a client but for what exactly s/he is: a citizen in a participatory democratic process.¹⁹ The NPM approach has been discredited specifically for imposing an artificial separation line between policy-making and policy-implementation and by claiming that policy-making belongs to the realm of politics while policy-implementation is a management issue. By imposing this artificial barrier, it has been claimed that the NPM approach does disservice to an integrative view of the governance process.

The New Public Management approach brings to mind the view of the Community as a regulatory organization that was analyzed in Chapter 1. The New Public Management approach seeks to amend the regulatory organization by emphasizing the importance of effectiveness and efficiency and the satisfaction of principle stakeholders. However, the “newness” of the NPM should not be overemphasized since there are inherent similarities in the assumptions of the NPM approach and the classical

¹⁵ Christopher Hood, *A Public Management for All Seasons?* 69 *Public Administration* 3, Spring 1991.

¹⁶ Johan P. Olsen, *Towards a European Administrative Space?* 3, ARENA Working Papers, WP 02/26 (2002) available online http://www.arena.uio.no/publications/wp02_26.htm.

¹⁷ Hood, *supra* note 15, at 5.

¹⁸ Les Metcalfe, *Accountability and Effectiveness: Designing the Rules of the Accounting Game* 3, paper presented for the European Institute for Advanced Studies in Management, International Conference on “Accounting for the New Public Management” in Venice, Sept. 17-19, 1998.

¹⁹ Linda DeLeon & Robert B. Denhardt, *The Political Theory of Reinvention* 60, *Public Administration Review* 89, March/April 2000.

model of Weberian bureaucracy. These assumptions involve an optimism that more efficient organizational forms will sideline less efficient ones and the automaton view of an organization that is supposed to respond in specific ways to specific stimuli.²⁰

While the New Public Management approach seems to have influenced the Community thinking, it has not totally transformed such thinking. For instance, the quantifiable objectives included in many directives could be seen as the outcome of the influence of the NPM. However, the adoption of detailed processes – now the bread and butter of environmental regulation – is not necessarily a requirement of the New Public Management approach. On the contrary, it is reminiscent of the old model of the Weberian type of bureaucracy.²¹

2.3. Environmental Issues as Process Issues

2.3.1. Culmination of Proceduralization

Since the lack of implementation is not inspired by a desire to spur Community law and because of the understanding that environmental problems need to be managed, the Community has to devise new ways to boost implementation given the existing circumstances of member states. From the late 1980s, therefore, and forward with a culmination point the adoption of the Water Framework Directive, the Community rules increasingly include procedural details on how legislation should be applied and thus how environmental problems should be managed. These process-oriented rules provide, for instance, details on the type of monitoring required – the selection of sampling points and the frequency of sampling – the methods of reporting and extensive requirements for derogations. The Community thus has been transcending gradually from the common goal-oriented approach of the 1970s to a common process-oriented approach. In order to facilitate implementation, the Community is not only to prescribe goals but also the detailed process through which states must go to achieve these goals. This increased emphasis on process and procedures rather than over-arching goals becomes a permanent element of the European Union environmental law.

The prescription of processes on how to monitor and apply legislation does not necessarily lead to full implementation. Extensive monitoring requirements and know-how procedural requirements may reveal, on the

²⁰ Olsen, *supra* note 16, at 3.

²¹ From Max Weber: *Essays in Sociology* (Hans H. Gerth ed., 1973), reprinted in *Classics of Organization Theory* 81 (Jay M. Shafritz & J. Steven Ott eds., 1992).

contrary, the lack of implementation. But the more the parameters of compliance are specifically designed, the less latitude states would have to cheat by presenting non-compliance as compliance or to omit to take action because they are at a loss of what to do.

The procedural overcrowding made necessary the organization of the legislative structure. The Community has enacted, for that purpose, Framework Directives that are supposed, as their definition indicates, to become the umbrella for the management of environmental problems. Framework Directives are followed by Daughter Directives that include the nuts-and-bolts for the control of specific pollutants. The organization of the directives into Framework Directives and Daughter Directives establishes an organizational system for the promulgation of law that adds logical structure to what seemed to be before an anarchical system. Before the adoption of Framework Directives, the evolution of the European Union legislation was difficult to decipher except chronologically. Organization is emphasized also through the prioritization that is evident in many of the areas of environmental legislation. For instance, hazardous substances are to be put on a priority list and action must be taken to limit the most hazardous substances first.

In addition to the detailed amount of processes on how to implement and apply legislation, the legislative acts themselves have shifted from a goal-specific approach to a process-approach. There are three ways to control pollution:

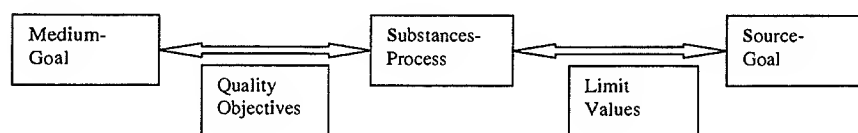
- at the source (usually through technological devices);
- in the medium (by prescribing standards for the quality of air, water and soil);
- by the process through which pollution occurs (the control of amount and nature of substances discharged or emitted).

Controlling pollution at the source and in medium is a goal-oriented approach. When the legislation was initially enacted it was an intuitive reaction to look at the source or the medium as a means of controlling pollution. Controlling pollution from specific sources (air quality legislation) and controlling pollution in the medium (water legislation) seem to target the actual problem of pollution where it occurs. As the sophistication on how to deal with pollution, however, grew a substance-oriented approach took precedence. A substance-oriented approach is a process-oriented approach, as polluting substances constitute the process through which pollution is generated. Many Framework Directives that have been enacted – in addition to specifying a common methodology for assessing pollution – establish as a priority the control of polluting substances independent of the source that discharges them.

Goals as understood in this study involve the broad goals of Community legislation. For instance, clean air, clear water and the reduction of pollution at the source are the over-arching goals that the Community has tried to achieve. What has changed from the beginning of the 1970s till today is the gradual inclusion of an overwhelming amount of procedures that constrain a state's ability to interpret the goals and thus make possible a more uniform implementation of the law. Such procedures are monitoring, reporting and classification procedures. The control of substances that pollute the different media (air, water, soil) is another process through which the overall goals of pollution control can be achieved. This process involves detailed standards (limit values) with regard to the emissions and discharges of specific substances.

A graphical representation of the conceptual evolution of EC environmental law is presented in Figure 2.1. The source and medium of pollution are at the opposing ends of a horizontal line and they constitute the intuitive goals of the initial legislative efforts to control pollution. Attention eventually shifted to the control of polluting substances, a procedure whose aim is to both improve the quality of medium and eventually control pollution at the source. Most of the 1980s and 1990s legislation adopts a mixed approach either by both controlling sources and substances or the medium and the substances discharged into it. For instance, most water legislation that controls polluting substances includes, in addition to limit values, quality objectives addressing thus both the medium and the process.²² Limit values have to do with the amount of the discharge legally allowed in a specific medium while quality objectives have to do with the attainment of quantitative quality targets in a medium. The trend towards the inclusion of more limit values rather than quality objectives in most legislative pieces, though, cannot be denied.

Figure 2.1. Conceptual Map of EC Environmental Law



The first legislative instruments that addressed air pollution were goal-oriented and attempted to control pollution at the source. The first directives targeted the obvious sources of pollution – the pollution caused by motor vehicles and products. The first air quality standards shifted the

²² See Chapter 5, Section 2.1.1.

attention from sources to medium. The legislation shifted again to a source/substance approach with the regulation of large combustion plants. The shift of the approach to a process approach is evident with the adoption of the 1996 Air Framework Directive whose purpose is to assess, *inter alia*, air quality based on a *common methodology*. The explicit establishment of a common methodology is the innovative element of the directive that verifies the transition to the prescription of common process as a means of controlling implementation. The Air Framework Directive, for the first time, establishes a list of substances that must be regulated strictly to avoid air pollution. The Daughter Directives that implement the Air Framework Directive establish limit values and emission targets for the control of specific substances that contribute to air pollution.

The water quality legislation was initially goal-oriented from the reverse direction: the control of pollution in the medium. This was the era when the Drinking Water Directive and the Bathing Water Directive were adopted. The legislation proceeded to become more substance-oriented with the enactment of 1976 Dangerous Substances Directive. The 1990s Directives combine a source/substance approach as they attempt to control polluting substances that are emitted from specific sources (Wastewater Treatment Directive and Nitrates Directive). Eventually the Water Framework Directive establishes a whole new system for the control of water pollution and the management of water as a resource with individualized assessments and targets, uniform procedures and the prescription of the foundations of a common administrative structure.

The waste legislation is the ultimate example of process legislation since it aims to control water, air and soil pollution by controlling a vast majority of hazardous substances. The legislation presents an articulation of managerial legislative style since it repeats the principles of sound waste management. The number of procedures included in the waste management legislation and, especially, the waste transfer legislation point to a high level of proceduralization that could be characterized as bureaucratization.

The biodiversity legislation is a “shifting-goal” legislation and, at this point, the least proceduralized piece of legislation. Biodiversity did not emerge as a term until the early 1990s when it was used by conservation biologists to command the public attention that the terms “nature” or “wilderness” could not command.²³ The term was eventually incorporated into an international instrument – the Convention on Biological Diversity.²⁴ Before

²³ Louka, *supra* note 1, at 34.

²⁴ Convention on Biological Diversity, June 5, 1992, *reprinted in* 31 I.L.M. 818 (1992).

the adoption of the convention, though, a series of laws had been adopted worldwide (including the EC) with the goal to protect species and natural habitats (*in situ conservation*) and the first gene banks had been created (*ex situ conservation*). The Biodiversity Convention has not changed the goals of biodiversity management. It has made them more explicit, organized them and systematized them under a single framework. The convention introduces an integrative concept that nature's protection is not restricted to the protection of habitats and species but encompasses ecosystem protection.²⁵

The EC legislation has followed the integrative and organizing path of international biodiversity regulation, but still lacks effective procedures that could assist in making biodiversity protection a reality. The first laws concentrated on the protection of habitats and species but then the goal shifted to the protection of biodiversity – that involves not only species or habitats but also the protection of ecosystems and their interactions. The Community has ratified the Biodiversity Convention and is about to adopt a strategy on biodiversity protection.²⁶ The efforts of the Community are bolstered by regional efforts on a pan-European strategy for the protection of biodiversity.

The increasing use of process as a control device of performance is evident in the number of voluntary, information, strategic and planning instruments – the so-called horizontal legislation – that the Community has adopted. The adoption of these instruments epitomizes the new mantra of the Community: “organization is the master of implementation.” In applying this mantra the Community has encouraged companies to organize themselves by establishing procedures that would help them achieve environmental targets. Such procedures include reviewing and recording every bit of their performance, issuing environmental statements and initiating verification procedures (the Eco-Management and Audit Scheme – EMAS).²⁷ The Community has developed a whole new system that assesses the best technologies appropriate for each industry sector (Integrated Pollution Prevention and Control – IPPC).²⁸ The Community has devised a process so that the impact of any plan, program or project on the environment is recorded and an examination of the alternatives

²⁵ Article 2 of the convention states: “ ‘Biological diversity’ means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.” *Id.*

²⁶ See Chapter 7, Section 2.3.

²⁷ See Chapter 3, Section 2.1.

²⁸ See Chapter 3, Section 2.2.

is taken into account (Strategic Environmental Assessment, Environmental Impact Assessment).²⁹ States must provide information to their citizens on environmental policies and measures as accurately and as swiftly as possible (Access to Information Directive).³⁰ This obsession with the right procedures and extensive documentation is believed to generate more implementation since companies and states cannot just state that they cannot perform, they have to find the reasons for the under-performance and report it to the authorities.

2.3.2. Institutionalization of Differentiation

At the inception of the Community each state had its own environmental goals (or no goals at all). The first step to integration involved, therefore, the “mass production of environmental goals” under a presumption that “one size fits all.” But the number of exceptions and differentiation during implementation have continuously undermined the one-goal-fits-all presumption and have gradually led to what could be called “customized differentiation.”

Differentiated goals always reigned in the environmental field under vaguely articulated provisions that if interpreted broadly give states discretion on when and how to apply the law. This is a cloaked differentiation so to speak since it is founded on unified goals that could be trumped by exceptions.

What distinguishes this initial “exceptions-based” differentiation from the new “customized differentiation” is that customized differentiation is deliberate and becomes a tool for managing states with different levels of development and environmental records. Differentiation is, thus, institutionalized as the accepted norm rather than the hidden exception. While differentiation as exceptionalism still inundates many instruments, institutionalized differentiation has been changing the nature of environmental law. Institutionalized differentiation has been transforming environmental law into an instrument geared more towards controlling implementation rather than setting the parameters of performance. This is so because differentiation is curbed by a number of procedural requirements that attempt to ensure that states actually implement the differentiated goals and that differentiated goals make sense and are justified.

²⁹ See Chapter 3, Section 1.2.

³⁰ See Chapter 3, Section 3.1.

An example of institutionalized differentiation is provided by the enhanced cooperation procedure examined in detail in Chapter 1.³¹ Customized goals are evident in the air protection legislation. As the legislation for the protection of the air is evolving, we are witnessing a transition to customized national emission targets for air pollution. The Community adopted the National Emission Ceilings Directive³² that establishes national emission ceilings for certain pollutants, namely sulphur dioxide, nitrogen oxide, volatile organic compounds and ammonia. The ceilings are to be achieved by member states individually and the Community as a whole by the year 2010. To meet these ceilings member states are to design their own national programs for the reduction of emissions and must make these programs available to the public. This tailored approach to reducing air pollution goes in tandem with specific targets and procedural requirements that address the curbing of polluting substances.

In the water legislation states are provided with flexibility to determine the quality status of their waters but under strict procedures that aim to ensure the quality and soundness of their decision. In the Water Framework Directive states are called upon to classify their waters based on ecoregions and to categorize their waters based on ecological status – as of high ecological status, good ecological status, moderate ecological status, poor ecological status and bad ecological status. States have also a large amount of discretion to identify their waters as heavily modified thus dampening the possibility of bringing them back to good ecological status. By classifying their waters states intrinsically set their goals about which waters they want to keep as they are and which they wish to restore. But they are not alone in this exercise. States are to classify their waters in reference to a parameter that compares the current status of water to an ideal undisturbed status. The classification boundaries set by states are to be followed by an intercalibration exercise performed by the Commission for the purposes of achieving some consistency in the classification of waters across states.³³ Thus it is clear in the Water Framework Directive that the differentiated goals prescribed for states are not to be determined totally by the free will of states. The free will is curbed by procedures aimed to ensure consistency in the application of the European Union environmental law.

The waste legislation, on the contrary, is still based on the old-fashioned differentiation since what seem to be unified goals of waste management

³¹ See Chapter 1, Section 2.2 on the value of Uniformity vs. Differentiation.

³² See Chapter 4, Section 2.2.2.

³³ See Chapter 5, Section 2.2.6.

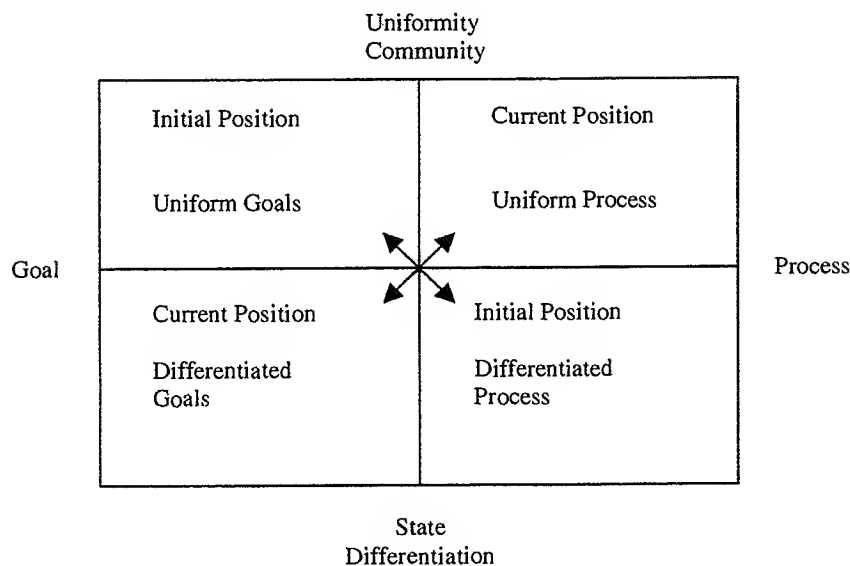
are subject to exceptions that could be taken advantage of to promote waste mismanagement. The use of exceptions to promote waste mismanagement is prevalent in the Community and it is based on a perception of wastes as valueless materials and, thus, good candidates for illegal disposal. This perception of wastes as valueless materials has haunted and will haunt the implementation of waste pollution control despite the amount of procedural roadblocks.

The biodiversity legislation is a “shifting-goal” legislation and states have been allowed more or less to set their own goals for the protection of biodiversity under open-ended directives that permit exceptionalism – circumscribed occasionally by the Court of Justice. Overall the biodiversity legislation lags behind the evolution of the air, water and waste legislation both in terms of detailed procedures and in terms of institutionalized differentiated goals.

2.3.3. Controlled Differentiation

The gradual shift from common goals to differentiated goals and from differentiated methods to common methods under a managerial approach to pollution restricts a state’s capacity to act autonomously in enacting environmental rules. The Community increasingly realized that the prescription of common goals does not lead to unified implementation. It makes more sense to give states and companies some discretion in the prescription of their goals but then make them organize themselves so that the goals are actually achieved. The differentiation allowed in the prescription of goals is heavily circumscribed since states have to explain why they are entitled to differentiation and how they plan to apply it.

If we were to place this evolution of environmental law on a two-by-two matrix, we could put on the horizontal axis goals versus process and on the vertical axis state (differentiation) versus community (uniformity). As the environmental law of the Community develops we notice a transition from uniform goals to differentiated goals and from differentiated process to common process (Figure 2.2.). It must be underlined, though, that this transition has not been happening overnight. It is still evolving. With each and every directive from the 1970s onwards the Community intensified the amount of procedures that control implementation and acquired a better understanding of the importance of customized goals.

Figure 2.2. The Evolution of Environmental Law

The evolution of environmental law in Europe sheds any illusions that Community environmental legislation is restricted to the promulgation of general rules while the development of regulations is left upon member states. As environmental law develops to include processes of implementation the regulatory discretion of states increasingly disappears. States are bound to transpose directives into national legislation and issue the appropriate regulatory requirements. Transposition, though, essentially becomes translation and the regulatory requirements are so clearly spelled out that what remains is their application to the specific geographical and population dynamics of each state. What we are witnessing, therefore, is the EC environmental law becoming, with its set of rules and regulations, a comprehensive federal law for Europe.

2.4. Organization and Administrative Structure

Furthermore EC environmental law has started to intervene in the prescription of institutions needed for correct implementation. The Water Framework Directive is a case in-point. This is the first directive to prescribe interstate regional administrative structures (where this is possible, otherwise existing regional structures can be used) whose purpose is water resource management. In the case of Water Framework Directive the Community did not only prescribe the procedures needed for implementation but also new administrative structures and divisions charged with water management. The creation of new inter- or intra- state

administrative structures or the subjection of local structures to European Union environmental law addresses directly the implementation problems that have been created in the past with local/regional authorities that have contested the interventionist legislative style of the Community. Now local/regional authorities become the subjects of European Union environmental law, are charged with knowing and applying that law and are responsible for reporting to EC authorities, though through state structures.

More specifically, the Water Framework Directive provides that member states must identify the water basins that exist in their territory and assign them to River Basin Districts.³⁴ If the River Basin Districts extends beyond the territory of a state, the state is supposed to coordinate with other states to establish International River Basin Districts.³⁵ Even more important, member states cooperate with non-member states when a River Basin District expands beyond the Community territory.³⁶ The River Basin Districts are to be governed by River Basin Management Authorities that are charged with the duty to generate River Basin Management Plans. These are the plans that would be used to manage water resources within a river basin district. If such plans cannot be devised for a whole international district, a state remains responsible to factor a plan for, at least, the part of the district that falls within its territory.³⁷

By proposing specific administrative structures and divisions, the Water Framework Directive attempts to construct a comprehensive administrative system for the environmental management of a resource. Such a system is comprised of specific components methodically designed to lead each state to implementation. Latitude is allowed but the parameters around it are so tight that it is becoming less important. The system of pollution control established by the Water Framework Directive involves:

- Organizing Structure (the River Basin Districts);³⁸
- Organizing Institution (the River Basin Management Authorities);³⁹
- Planning (the River Basin Management Plans);⁴⁰

³⁴ See Chapter 5, Section 2.2.3.

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

- Methodology (the classification of water: first-step classification, classification based on eco-regions, classification based on ecological status);⁴¹
- Monitoring and Public Participation.⁴²

Exceptions and derogations⁴³ are allowed but they are not simple to obtain as specific requirements are placed upon them. A factor that restricts the application of derogations is that they must be explained and publicized in the river basin management plans – that is requests for exceptions are up for scrutiny by interested environmental organizations.

The Water Framework Directive is without a doubt the directive that establishes an organizing system for the management of water resources. Seeds of such a system existed already in the Air Framework Directive. The Air Framework Directive has placed specific emphasis on the organization of control of air pollution. Such organization involves: the establishment of competent authorities, the division of state territory into zones and agglomerations to assess air quality and the categorization of agglomerations based on the gravity of air pollution.⁴⁴

The systematic approach to pollution management is evident also in the adoption of the Community eco-management and audit scheme (EMAS).⁴⁵ The purpose of the EMAS is to persuade companies to incorporate procedures that would make the final adoption of sound environmental goals inevitable. Essentially the EMAS encourages companies to apply the management approach that they themselves have invented to the management of the environmental problems they cause. The EMAS is not merely a scheme. It is a system that, if applied, is bound to guarantee the revelation of the actual environmental performance of companies. If the revelation demonstrates environmental under-performance, the EMAS scheme bets that the company will be shamed to compliance. The EMAS asks companies to undertake a number of organizing activities: a review of their activities; a definition of their environmental policy; planning to meet objectives and targets; implementation, monitoring and corrective action.⁴⁶ Most important, the EMAS provides that all these organizing activities are to be audited by independent environmental verifiers.⁴⁷ The

⁴¹ See Chapter 5, Section 2.2.4.

⁴² See Chapter 5, Sections 2.2.6.-2.2.7.

⁴³ See Chapter 5, Section 2.2.8.

⁴⁴ See Chapter 4, Section 2.2.1.

⁴⁵ See Chapter 3, Section 2.1.

⁴⁶ *Id.*

⁴⁷ *Id.*

EMAS is still a voluntary system but it is exemplary in the amount and detail of managerial/organizing requirements it includes that are hoped to lead organizations step-by-step to compliance.

2.5. Institutionalized Public Participation

Participation of public interest has been translated to mean the participation of organized non-governmental organizations and citizens in the decisionmaking process. As seen before, though, the capturing of the Community by special interest groups that are assumed to represent the public interest is an extremely problematic issue⁴⁸ which the Community has tried to address, at least partly, with the institutionalization of public participation.

The development of environmental law has meant the involvement of non-governmental organizations (both industrial and environmental) in the decisionmaking process. The European Community actually sponsors environmental non-governmental organizations to become involved in its affairs.⁴⁹ In the past, the involvement of NGOs was quite informal. An example of this informal participation is provided by the voluntary programs the Community has enacted in which it has invited industry to participate.⁵⁰ The goal of these programs is to develop better environmental standards and to foster self-enforcement. The Community conducts consultations with environmental groups and industry associations during the legislative process.

Grappling with the issue of “true” representation of public interest, the Community is adopting a more formal and transparent approach to participation. Now the legislative acts of the European Community have structured public participation so that it is clear to member states when to seek and how to incorporate into their plans such participation. The Water Framework Directive provides specific provisions for public participation. And the same is true with the 2003 Access to Information, Public Participation in Decisionmaking and Access to Justice Directive.⁵¹

The Water Framework Directive is the first thematic directive that structures explicitly public participation. The directive provides that all interested parties must participate in the production, reviewing and

⁴⁸ See Chapter 1, Section 4.5.

⁴⁹ See Chapter 1, Section 4.2.

⁵⁰ An example of such a program is the Auto-Oil Program. For more details on the Auto-Oil Program, see Chapter 3, Section 2.3.

⁵¹ See Chapter 3, Section 3.1.

updating of the river basin management plans.⁵² Participation is encouraged in all the stages of the adoption of the plan, for instance, regarding the timetable and workplan, the interim overview of important management issues and the first draft of the plan.⁵³ Interested parties must review also each update of the plan after it is initially adopted. Participation involves knowing how decisions are made. States are to supply interested parties with the background documents and information they have used to prepare the plan.⁵⁴

Extensive public participation provisions are provided in the 2003 Access to Information Directive where interested parties that have been denied access to information have, in addition to other remedies, access to judicial authorities.⁵⁵ In other words, the public does not only have the right to access information but also procedures are established to guarantee access to justice in case the right to information is infringed.

The increasing institutionalization of public participation should not be overlooked as a simple legislative incorporation of an existing Community practice. It has far-reaching effects both with regard to the function of the state and the functioning of public interest groups.

In order for the public to participate, it must obtain information. The state must make the information available. The provisions for public participation and access to information assign to the state the function of control and systematization of information. These provisions legitimize, thus, the role of the state as the collector and organizer of information that may at its discretion, which is somewhat limited, provide it to the public. It is interesting to observe, therefore, that through the environmental prerogative the state assumes a role that would have been objected to explicitly in other *fora*. Some of the interests that support states' extensive involvement in the production of environmental information would have objected to a similar state involvement in other areas, for instance, in the collection of information on individuals. The problem is that as states grow and gain experience in managing and distributing information, there is nothing that prevents them (except for constitutional principles that may be overridden) from applying this know-how to other areas under the pretense of accomplishment of other public interest goals.

⁵² See Chapter 5, Section 2.2.7.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ See Chapter 3, Section 3.1.

It is unclear, thus, whether institutionalized participation signals the transition from government to governance as it has been hailed in different *fora*.⁵⁶ The institutionalization of public participation may signal the emergence of governance possibilities. But this does not mean that states are divested of their old function such as that of arbitrators of opposing interests.⁵⁷ Actually institutionalized public participation could strengthen the role of states – and the Community – as objective arbitrators. States are now legitimate, avid collectors of information, a dangerous threat for liberalism and all the values it implicates.

The institutionalization of the right to participation would give groups with limited resources the opportunity to become involved in the regulatory process. The legislation in effect signals to such groups that their inquisition and contributions are welcomed since the Community apparatus asks explicitly for their involvement. It is not that the involvement of such groups was not desired before. It is that the desirability of their participation was not extensively and formally communicated.

The inclusion of public participation procedures in the legislative instruments would make it more difficult to sideline environmental interests in general. Environmental groups have stated often that their contribution to the legislative process amounts at best to consultative status and that it is disregarded easily because of the lack of procedures that would make the involvement count.⁵⁸ The explicit provisions of public participation in the Water Framework Directive would make easier to guarantee that public participation is not disregarded.

What is interesting here, from the point of view of this study, is that the Community deliberately searches below the nation-state to mandate and structure its relationship with sub-national interests. Structuring and proceduralizing this relationship, including the provision of recourse in cases of perceived unfairness, are likely to increase the even-handedness of states and the Community in their dealings with various groups. Structuring the participation of public interest, though, still does not resolve issues of “true” representation as more powerful and resource-rich groups are still bound to outplay smaller and weak ones. And of course, institutionalizing public participation could not, by its nature, address the question of participation of the larger apathetic public.

⁵⁶ See generally *Governance without Government: Order and Change in World Politics* (James N. Rosenau & Ernst-Otto Czempiel eds., 1992).

⁵⁷ This is an old view of states. See Kelly, *supra* note 5. A revolutionary approach at its time, the Marxist approach, proposes a view of states as tools in the interests of the prevailing social class.

⁵⁸ See, e.g., Chapter 3, Section 2.2.

3. EC ENVIRONMENTAL LAW AS INTERNATIONAL LAW

While the Community acts as the federal state of Europe, it also often feels as an international/supranational organization based on treaties rather than a constitution. The environmental law of the European Union, as it should be expected, therefore, reflects the ambivalence about the identity of the European Union – an ambivalence between a federal state and an international *sui generis* structure. While the rapid integration in many fields and the multiplication of Community institutions shift the scales toward federalism, the idea of an international order – to which the Community owes respect because it belongs to – is prevalent in many Community environmental instruments. The Community has adopted, thus, principles of international law such as the precautionary principle, the polluter pays principle and the principle of sustainable development.⁵⁹ It has adopted many of the international rules for the transnational movements of wastes.⁶⁰ In the areas of air pollution, water pollution and biodiversity protection the Community has shown allegiance to the relevant international regimes.⁶¹

This adherence to international environmental law has had two effects:

- *Integrative*: the unification of the European environmental law at a pan-European scale. This is a positive effect and has to do with the influence of the Community on the wider European region comprised of states that may desire to integrate into the Community but are not part of the formal integrative process. Through the give-and-take between the Community environmental law and the regional environmental law, member states of the Community and other European states are provided with opportunities to align their aspirations and their legislation before even formal integration takes place. For states that do not desire to be members of the Union, the involvement of the Community may provide administrative and financial resources. The involvement of the Community may smoothen also the application of environmental law all through Europe through the harmonization of environmental standards. This process may eventually lead to the adoption of pan-European environmental standards differentiated in their goals but unified in their monitoring and reporting procedures facilitating thus implementation.

⁵⁹ See Chapter 1, Section 2.2.

⁶⁰ See Chapter 6, Section 4.1.

⁶¹ See Chapter 4, Section 3; Chapter 5, Section 3; Chapter 7, Section 3.

- *Fragmented/Isolationist*: the potential dis-integrative effects on the Union when international environmental law is applied uncritically to the Community structure. The case in point here involves the cross-border movements of hazardous wastes for which the Community, in sympathy with international rules, has adopted the principles of self-sufficiency and proximity. According to the international policy, and European Union policy inspired by it, states must become self-sufficient in dealing with their waste. Self-sufficiency as a rule is not often encountered in international *fora* where emphasis is placed on free trade and the acquisition of a comparative advantage. Thus self-sufficiency in waste management is clearly an exception in international and intra-Community transactions. While self-sufficiency could be justified due to the politics that surround the international waste movements, it is still a rule that should have not been translated into Community action because of its anti-integrative impacts. Self-sufficiency is antithetical to the principle of solidarity, a founding principle of EU law.

Different areas of Community legislation have exposed different degrees of internationalization. Without any doubt the legislation that aims to control air pollution has been affected largely by the international developments for the control of air pollution. And this is not only with regard to what has been called “long-range transboundary air pollution” but also with regard to the protection of the ozone layer and the efforts to reverse climate change.⁶²

The waste legislation, by nature a process legislation, copies uncritically many of the provisions of international regulations on the control of cross-border movements of waste. The waste legislation endorses also most of the international standards for the sound management of wastes. It is shown in Chapter 6 that the Community waste legislation, in order to become successful within the Community, needs to become less loyal to the international standards and adopt a deeper Community approach.

The water legislation, while not indifferent to international developments, is more inward looking as the Community strives to develop its own requirements for drinking water, bathing water and the release of dangerous substances into the environment. This makes sense since the protection of drinking and bathing waters is usually a matter of domestic or regional concern rather than an international prerogative.

⁶² See Chapter 3, Sections 4.1.-4.2.

The biodiversity legislation in terms of philosophy is clearly European. In terms of the instruments adopted, it is evidently international. The Community has already adopted many international instruments for the protection of species and habitats and has translated them into its own directives. At the same time, the Community has initiated a unique approach to the protection of biodiversity based on the development of ecological networks with human needs at the center of biodiversity protection. The proposition of development of ecological networks within the Community dates prior to the adoption of the Biodiversity Convention. Needless to say, though, the Biodiversity Convention⁶³ presents new challenges for the Community. An important such challenge has to do with the center of conservation efforts. As nature reserves and the exclusion of people from protected areas are still in vogue, the question is whether the Community will follow the prevalent exclusionary conservation efforts or preserve its unique approach to biodiversity protection.⁶⁴ Another challenge has to do with the requirements for gene bank development that have yet to be fully articulated at the Community level.⁶⁵

At the horizontal level, as seen in Chapter 1, the Community has adopted many international principles such as the principle of sustainable development, the precautionary principle and the polluter pays principle.⁶⁶ The Community has opted for the promulgation of environmental impact assessment legislation in tandem with similar international developments.⁶⁷ While the adoption of international environmental principles seems to be harmless, from the point of view of development of European Union environmental law, it could have isolationist impacts. This is so when the principles are interpreted under a preservation ethos rather than under the pragmatics of sustainable development.

Principles are desirable elements of Community law. The principles promulgated till today are intuitive. It makes intuitive sense, for instance, that the polluter must pay for the pollution s/he causes, that precaution is better than remediation and that development should be balanced with environmental considerations. Thus, while the principles do not prescribe particular outcomes they prescribe some parameters of action that seem sensible. How the principles are applied in practice depends on what policymakers decide under particular circumstances. Often politics dictate the extreme application of principles. This could be the case, for instance,

⁶³ See *supra* note 24.

⁶⁴ See Chapter 7, Section 1.1.

⁶⁵ See Chapter 7, Section 1.3.

⁶⁶ See Chapter 1, Section 2.2.

⁶⁷ See Chapter 3, Section 1.2.

with the precautionary principle that, if taken to extremes, could be used as a trade barrier.⁶⁸ Extreme precaution in environmental matters could become a trade barrier for many products, especially products coming from the developing world.

Overall, the internationalization of Community law can lead to further integration of the European continent with the European Union as its axis. Internationalization can fragment also the Community when the protection of the environment, as perceived in international circles, would demand the isolation of member states in their environmental management practices and the isolation of Community from its trading partners.

4. EC LAW AS A SYNTHESIS BETWEEN PUBLIC LAW AND INTERNATIONAL LAW

Pendulous between the two worlds of a federal state and an international organization, EU environmental law has proceeded to invent new ways to demonstrate its relevance in the European reality.

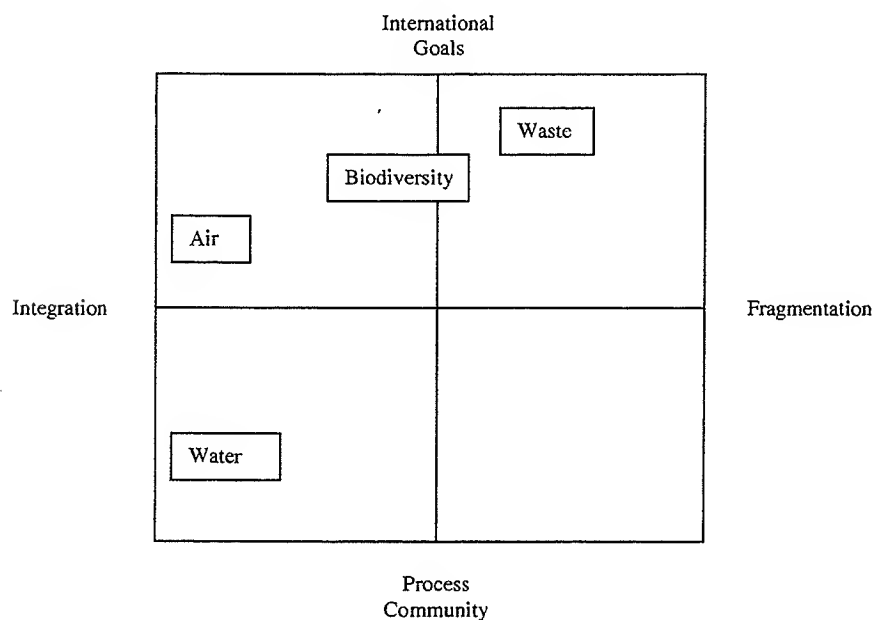
Gone are the days when standards were prescribed and states were left to their own devices to apply them. Detailed methods are provided, instead, for the application of desired rules. The goal is to leave nothing to chance but to methodically apply, monitor, evaluate and reinvent – that is to manage environmental problems effectively. At the same time, the Community has become an avid participator in the international environmental politics and has adopted many of the principles and rules of international lawmaking.

The Community has moved in a direction where the accomplishment of differentiated goals is under stringent control by a number of common procedures. These differentiated goals are often international goals, or a more stringent amendment of them, that the Community attempts to implement by ensuring that states do not deviate from common methodologies of evaluation and monitoring and organizing principles of performance. An attempt to implement international goals could have, in most cases, integrative effects beneficial not only for the Community but also for the whole continent. In other cases, though, excessive internationalization could disorient the whole purpose of developing a unified Europe.

⁶⁸ See, e.g., David Vogel, *The WHO, International Trade and Environmental Protection: European and American Perspectives* 13, European University Institute, Robert Schuman Centre for Advanced Studies, EUI Working Papers, RSC No 2002/34 (2002).

If we were to place the thematic evolution of EC environmental law on a two-by-two matrix, we would realize that EC law incorporates international goals and Community process in a way that in most cases leads to integration. But integration is not the unavoidable result since fragmentation is possible when the international goals incorporated have as a focus the nation-state rather than a community of states (Figure 2.3.).

Figure 2.3. EC Environmental Law: Between Public Law and International Law



From the two-by-two matrix (Figure 2.3.) one can see, for instance, that the legislation aimed at the control of air pollution has integrative characteristics and incorporates many international goals as articulated by the World Health Organization and the international regime of air protection.⁶⁹ The international goals are translated into customized goals for each member state through the National Emission Ceilings Directive.⁷⁰ The Community process involves the participation of national and sub-national structures for the assessment and control of air pollution. The Air Framework Directive provides, for instance, for the establishment of competent authorities within the nation state for the assessment and

⁶⁹ See Chapter 4, Section 3.

⁷⁰ See Chapter 4, Section 2.2.2.

control of air pollution and for specific subdivisions in the territory of member states to facilitate air pollution management.⁷¹

The Water Framework Directive leaves the determination of water management to member states but under strict and elaborate Community procedures (national, regional) on how to arrive at that determination. The water legislation establishes an extensive number of procedures on how to establish and control water quality. This is the most “proceduralized piece” of legislation since it proposes also the administrative structures in charge of the management of water resources that are to be established by member states.⁷² The water legislation is a unique piece of legislation in that for the first time the Community has proposed a whole system for the management of a resource. While the water protection law contains some international goals, this is not as evident as in the air protection legislation. The lack of international goals has to do with the fact that many waters protected by states are under domestic jurisdiction and international organizations have not been active in regulating them. Community’s heavy involvement in the management of water has not extended to the management of marine pollution and coastal zone management as these are seen as matters that fall under international jurisdiction and domestic jurisdiction respectively.

The waste management legislation is internally divided. The waste management rules establish, on one hand, an integrated and comprehensive waste management system based on the concept of a network of facilities. The waste transfer system, on other hand, is based on self-sufficiency. The waste management legislation includes many aspects of national waste management systems and what is called, in the waste management literature, “sound waste management.” Sound waste management denotes a preference for waste minimization and recycling and proposes incineration and landfill disposal as the last resort methods of waste management. In addition, incineration and landfill disposal cannot happen unless states abide by certain standards. The Community waste transfer legislation includes the principles of self-sufficiency and proximity – that is that member states must become self-sufficient in the management of their wastes and that wastes should be treated and disposed of as close as possible to the point of generation. These principles have been borrowed directly from international law and are bound to have dis-integrative effects at the Community level. Given their exclusionary nature, proximity and self-sufficiency are to multiply the number of disposal facilities and make Europe’s environment even worse.

⁷¹ See Chapter 4, Section 2.2.1.

⁷² See Chapter 5, Section 2.2.3.

Biodiversity protection is the stated ultimate goal of environmental protection. The biodiversity rules of the Community include many international goals. Community processes, however, for the achievement of goals are scant. Despite the extensive borrowing from international instruments, the Community biodiversity policy is not a copy of them. On the contrary, biodiversity legislation at the Community seems to pay genuine attention to the organization of ecological networks rather than to the protection of isolated areas of conservation.⁷³ Community legislation presents, in this respect, a more balanced approach than that proposed by the interpretation of international instruments. There is a risk, however, that international discourse could potentially fragment Community efforts if it propels the Community to abandon its unique approach to biodiversity protection.

5. THE NORMATIVE DEVELOPMENT OF EC ENVIRONMENTAL LAW

On the normative side this study cautions against two trends that, while not yet fully articulated, if left unchecked, could hamper the effective evolution and integrative focus of Community law. One such trend involves the excessive bureaucratization of Community law. The other has to do with an application of international environmental principles and goals that hampers integration. Integration, as understood here, is not synonymous with free trade. It is based, instead, on the principle of solidarity that mandates the common management of environmental issues.

Prescribing a normative direction for the future of environmental law involves a re-examination of the purpose of the Community. The prescription of normative rules demands an answer to the question: what is the Community established to achieve? If the answer to this question puts integration first, it would give a particular direction to the management of environmental issues. This is a direction that mandates the common management of environmental problems based on the principle of solidarity.

If the answer to the question puts environmental protection first a number of schemes based on nationhood could emerge without an evaluative instrument that would help ranking them. This is because environmental protection could mean all sorts of things and could be achieved by all sorts

⁷³ See, e.g., Chapter 7, Section 1.1.

of different methods.⁷⁴ Superimposing the value of integration upon the value of environmental protection provides the key piece of the puzzle that helps evaluate and organize the rest of the pieces.

Another approach is to view the goals of integration and environmental protection as equal. Under this approach a decision needs to be made *ad hoc* in each particular situation about which goal will prevail.⁷⁵ However, if all goals of the Community were to be equal without guiding direction about which goal should prevail in case of conflict confusion would ensue about the true purpose of the Community. Environmental protection could mean many things to different people. Without guidance under an integration principle it could effectively disintegrate the Community.

5.1. Bureaucratization

The word bureaucracy brings with it bad connotations such as loads of paperwork that seem unnecessary and long lines before a disagreeable official who thinks s/he owns the world.

Having said that, bureaucracy is a means of organizing states. It involves rules of law and regulations that all individuals subject to a state must follow. This is what has been called a “rational-legal bureaucracy.”⁷⁶ The rational-legal bureaucracy involves the establishment of rational standards and procedures that are binding and need to be enforced.⁷⁷ And it is a form of state organization that has been proven to work,⁷⁸ though not always perfectly.⁷⁹ Bureaucracy has equalizing effects since ideally all citizens are subject to the same bureaucratic requirements. Bureaucracy brings order where otherwise would be disorder. It brings efficiency where

⁷⁴ For instance, some could argue for zero pollution and zero growth and a return to the subsistence societies of the past. See Louka, *supra* note 1, at 43. Some environmentalists do not support free trade, an organizing principle of the Community, since it could potentially lead to the adoption of the lowest common denominator for environmental protection as states compete to sell their products.

⁷⁵ See Ida J. Koppen, *The Role of the European Court of Justice*, in *Environmental Law and Policy in the European Union: Actors, Institutions & Processes* 100, 116 (Andrew Jordan ed., 2002).

⁷⁶ Charles Perrow, *Complex Organizations: A Critical Essay* 3-4 (1979). In addition to the rule of law, other characteristics of a rational-bureaucratic organization involve: the development of a hierarchy; a systematic division of labor based on specialized training; written rules and records; rewards based on fixed salaries; the separation of official duties from personal matters; obedience to the office not to the person who holds the office; enforcement exercised under specific conditions established before hand; the right to appeal. See *id.* at 57.

⁷⁷ *Id.*

⁷⁸ *Id.* at 5.

⁷⁹ See, e.g., James G. March & Herbert A. Simon, *Organizations* 36-47 (1958).

otherwise would be inefficiency. Bureaucracy emphasizes the means, the procedures rather than the results. Taking as an example the imposition of taxes: the instructions given for filling out tax forms must be followed in detail and the uniform tax forms must be submitted by specific deadlines. One could only imagine the ensuing chaos if such instructions and forms did not exist and citizens were left to their own devices to decipher their taxes. The mere *raison d'être* of state will cease to exist. The rationale of bureaucracy in the environmental field has to do with a mentality that believes that if we are able to get and record every bit of information about pollution and who produces it, we would be able to pin down the polluter and demand compliance.

The European Union bureaucracy is a formidable bureaucracy with endless numbers of committees and subcommittees in addition to a large number of interest groups that lobby it. The denomination of the Community as a regulatory, and thus bureaucratic, state has been analyzed before and is proven in the development and evolution of environmental legislation.⁸⁰

The question that must be answered here is when bureaucracy becomes bureaucratization – that is when the promulgation of procedural requirements ceases to serve efficiency and effectiveness in the application of law and becomes a tool in the hands of authorities useful in undermining the uninitiated public. The second question that must be answered is whether the European Community environmental law has reached that level of bureaucratization.

Bureaucracy becomes bureaucratization in severe cases, for instance, when the rules are not applied equally to all affected and when there is an abuse of power. Bureaucratization exists also in simpler cases when the principle of proportionality is not met and the rules are unnecessarily complex and confusing and when guidance for implementation is scarce or economically prohibitive.

Despite sporadic episodes⁸¹ one could hardly characterize the Community as an abusive bureaucratic state. With regard to the less severe cases of bureaucratization it is difficult to judge whether the principle of proportionality is always met and whether the rules promulgated are unnecessarily complex and confusing. This is especially so in a field of law such as

⁸⁰ See Chapter 1, Section 4.5.

⁸¹ For instance, the case of the Sander's Commission that was accused of nepotism and mishandling of Community law, see John McCormick, *The European Union: Politics and Policies* 153 (1999).

the environmental law where precision in articulation often means the insertion of scientific jargon and where the lack of implementation has made necessary the adoption of a myriad procedural safeguards.

What can be said with certainty, though, is that those who make EU environmental law have engaged lately in excruciating efforts to ensure that every bit of legislation is explained and to do away with the mystification that some of the directives could inspire. The Implementation Guide for the Water Framework Directive is such an example. The same can be said with regard to the detailed requirements included in other directives, for instance the EMAS Directive and the Access to Information Directive that appear to be clear and straightforward. It must not be forgotten also that some of this organizing legislation is still voluntary. For instance the EMAS, not a simple instrument to apply, is voluntary. The BREFs that emanate from the IPPC Directive are also non-mandatory. Overall there are many initiatives within the European Community that point to the development of a benign bureaucratic state. On the other hand, the sheer complexity of some instruments, the length of others (e.g., BREFs) and the fostering of a perfectionist attitude (for instance, with regard to the application of EMAS) point to the opposite direction.

The rationale fostering bureaucratization rests on the belief that extensive proceduralization would command compliance. Environmental policy then becomes a sort of tax policy. Everybody has an obligation to report to the tax authorities his/her income. The information collected through this mandatory process of reporting gives states the leverage to exert effective power. Reporting on environmental performance through mandatory and non-mandatory means could produce similar results. As information becomes knowledge through dissemination and reinterpretation it could become a weapon in the hands of state enforcers or zealous environmental groups. This is what the industry is afraid of when it insists on the voluntary character of EMAS and the non-mandatory nature of BREFs and it resists excessive proceduralization. Another matter that must be considered in this context is whether it is desirable, from a public policy perspective, for an environmental policy to resemble a tax policy. When the industry passes the costs of pollution to the consumer (the ultimate polluter, since s/he uses the services and products that generate pollution) the question is whether s/he will be willing to pay for all the costs of environmental compliance. Or would there be a consumer backlash because of the increased prices of many products. In other words, the question is whether environmental policymaking can achieve more by gradually winning the hearts and minds of people – and industries that serve them – or by using all the sticks available – including now information – to command compliance. Taming the tendency for excessive

regulation with the desire to win the hearts and minds of people will be the test for the success of environmental law in Europe.

5.2. Internationalism and Environmentalism

Internationalism

The European Union cannot but feel and act like an international organization that owes respect to the other international structures that surround it. The Community has adopted many international instruments and principles. The member states of the European Community participate in international entities whose purpose is to protect particular environments.

Two dangers emanate from this type of activity. One has to do with the blind adoption of international environmental obligations with no regard to the consequences of their application on Community integration. The other has to do with the development of a sort of regionalism that could be used to unravel outside the Community what is attempted to be achieved inside.

The first danger has already been realized with regard to the cross-border movement of wastes. The Community has blindly adopted an international regime based on the principle of self-sufficiency that negates fundamental principles of Community law such as the principle of solidarity. The principle of self-sufficiency has generated such an intolerable situation that the Community has specifically asked in the prescription of PCB legislation for member states to leave self-sufficiency aside and follow the principle of solidarity.⁸²

With the regard to the development of regionalism, one has to note that no matter what is said and done the Community feels to be part of a larger Europe and would not probably rest on its laurels unless this larger Europe becomes part of it. The dream of a unified and powerful Europe inspires many of the Union's activities.

With regard to environmental law, as mentioned before, the involvement of member states in the larger region has had beneficial effects such as that of the alignment of European Union standards with regional standards and vice-versa. The case in point involves the regional regimes for the protection of water and air. In the air quality regime, it is obvious that international developments have inspired Community action. Also

⁸² See Chapter 6, Section 2.3.

few international standards for the control of water quality are more stringent than Community's own. The development of a pan-European network for the protection of biodiversity is inspiring even though it has yet to be implemented in practice. The successful relationship between Union states and other European states emanates from the hope of future integration and a spirit of affinity that seems to exist and mature.

The same cannot be said about regional regimes that include the weaker environmentally member states but also countries that have no hope or desire to join the Union. Such is the case with the regime for the protection of waters of the Mediterranean region.⁸³ None of the member states of the European Union that belongs to the regime is an environmental leader and the rest of states are developing states. As a result the regime has remained outdated, lacks definition and enforcement. What is even worse is that it is difficult to monitor the pollution in the region because of the absence of data.

The Community has two options with regard to such regimes. To leave them as they are and let them languish or to bribe them to compliance. In the first case, the Community will undermine the implementation of its own standards in areas that are practically (even though partially) under its jurisdiction. In the second case, it would have to provide assistance to states where it has no control over how such assistance would be used. It is a double-edge sword but it is also an issue that must be resolved with urgency. In the case of the Mediterranean regime, the Community has adopted through its directives many of its components. What is lacking is the development of an infrastructure with the appropriate financing to carry through the implementation of the regime.

Environmentalism

Furthermore, the pursuit of environmental goals is not an end in itself. Such pursuit must facilitate simultaneously the purposes of integration. Actually the promulgation of common environmental goals and now common procedures has exactly this purpose: to harmonize member states standards and implementation with regard to the protection of the environment. Such harmonization should facilitate final integration.

Since the Community, though, is now more than a common market, the argument could be made that the protection of the environment is a goal that deserves its own attention that goes beyond the free movement of goods. This tug-of-war between environment and trade is obvious in the

⁸³ See Chapter 5, Section 3.2.3.

portion of the treaty devoted to the environment and in the Court decisions. As demonstrated below, the Court in many of its decisions has tried to find the right balance between environmental protection and free trade and has usually done so in a way that facilitates integration by supporting the weakest Community institution.⁸⁴

In this study it is maintained that the pursuit of environmental goals should not be done in a way that would hamper integration. The pursuit of environmental goals, on the contrary, must be effectuated in a mindset that fosters integration. Environmental problems should be seen as an opportunity to strengthen the solidarity among member states rather than to weaken it.

For instance, the pursuit of self-sufficiency principle for waste shipments is bound to hamper integration and measures must be taken to clearly balance the principle of self-sufficiency with the principle of solidarity. The same is true with an application of the precautionary principle when it is used as a device to exclude products from other member states or third countries. The precautionary principle, at its extreme articulation, could become an effective trade barrier and could suffocate not only intra-Community trade but also trade with developing countries and could lead to an isolationist stance.

The question that the Community has to ask itself when it develops environmental rules is the following: what the ultimate goal of the Community is and how the pursuit of a particular environmental goal can be fitted to serve this ultimate goal. Since the ultimate goal of the Community is integration, the manner of pursuit of environmental goals is simplified: integration, in other words, provides the evaluative criterion that helps to sort out and rank the different ways to manage environmental problems.

⁸⁴ See, e.g., Chapter 6, Section 4.2.

CHAPTER 3. HORIZONTAL LEGISLATION

A way to reinforce coherence in the application of EC environmental policy is through the development of legislation that applies all across different environmental policies and all across the different sectors of the economy. This horizontal legislation is primarily procedural legislation. It provides for processes that industries and policymakers must follow in planning, monitoring and evaluating their behavior.

Horizontal instruments include: strategic and planning instruments, voluntaristic instruments, information instruments and market-based instruments. Some of these instruments have been named “New Environmental Policy Instruments” (NEPI).¹ This is because they are not regulatory in the way the ‘old’ instruments were. They are based, instead, on techniques such as information and economic incentives whose purpose is to elicit rather than to command compliance.

The assumption behind these instruments is that environmental targets cannot be met:

- unless companies make significant efforts to organize themselves to achieve targets by reviewing and recording every bit of their performance (EMAS);
- unless the best technologies are recorded and revised regularly (IPPC);
- unless the impact of any plan, program or project on the environment is recorded (with an examination of the alternatives) (SEA, EIA);
- unless the public has all the information available at its fingertips (Access to Information Directive);
- unless efforts are made to entice industry to comply (market-based instruments).

The obsession with the right organization, recording and information that is a characteristic of these instruments is believed to foster implementation. Constraining companies with procedural requirements provides them with less room of maneuvering in explaining away their environmental under-performance. Not only that – the public must have access to all this meticulously compiled information and procedures are established to

¹ These commentators classify instruments into sticks (regulatory instruments), carrots (market-based instruments) and sermons (information devices and voluntary agreements). Market-based instruments and information devices are increasingly used in the Community and member states as a supplement to regulatory instruments. See Andrew Jordan et al., *Innovating with New Environmental Policy Instruments: Convergence or Divergence in the European Union?*, paper prepared for delivery at the 2000 Annual Meeting of the American Political Science Association, Aug. 31-Sept. 3, 2000.

guarantee its participation and access to justice in case the rights to information and participation are infringed. The public, that includes environmental organizations, could obtain the information needed, publicize the worst polluter cases and thus blackmail compliance.

It remains to be seen whether the obsession with procedures will bring better environmental performance since occasionally establishing procedures may create a need to establish even better procedures and eventually lead to a process that, instead of achieving environmental outcomes, is perfecting the way to get to those outcomes.

With regard to voluntaristic, planning and strategic instruments, the discretion allowed in their implementation should not distract from the impact that these instruments could have if applied appropriately. This is because they require of industries and policymakers to think before they act. And such thinking is not independent. It has to account, in a specific manner, for the requirements included in the legislation. Each and every company that decides to apply an EMAS system has not only to think through how the EMAS serves its specific case but also to go through the specific EMAS steps prescribed in the legislation. Every policymaker who goes through a strategic impact assessment has to think through and resolve the impact of a plan/program on the environment and the possibility of adopting alternative programs through the process prescribed in the legislation.

Thus due to their nature, the application of most NEPI instruments is bound to differ from case-to-case. While the general steps for applying an EMAS system are the same, the EMAS of different companies are bound to differ. The same is true with the environmental impact assessments that are bound to differ from project to project. The facts that surround each company or project are different. Issues of fact and their appreciation in *ad hoc* circumstances allow for differentiation in the application of the instruments. At the legislative level, though, the process prescribed is the same. Differentiation, thus, is allowed but it is controlled – not always as severely as the Commission would desire.²

Information instruments may appear weak since the numerous exceptions could be interpreted in favor of those unwilling to provide information. The European Community adopted the Access to Information Directive³ in the early 1990s and the directive was amended in 2003 to comply with new international instruments that have made access to information even

² See, eg., *infra* Section 1.2.

³ See *infra* Section 3.1.

more intrusive. The requirements for accessing information, for participation and access to justice – which are bound to be quite challenging for many of the secretive states of the European Union – could have significant influence on industry's compliance and how states are empowered to demand such compliance. The right to information, in other words, presents both a challenge and an opportunity for states. It is challenge because states are usually not keen on divulging information. It is an opportunity because it legitimizes the role of states as collectors and organizers of information.

The right to information and participation empowers also environmental organizations since it institutionalizes their right to know (and thus blackmail compliance) and their right to participate in decisionmaking. As it is the case with planning and voluntaristic instruments, blackmailing compliance at the industry level and inciting state enforcement action could eventually lead to a more uniform application of Community law on the ground. Thus information instruments could lead to closer and more pragmatic unification that goes beyond mere legislative transposition.

Finally market-based instruments could be the 'carrots' that provide the incentives for companies to perform. Market-based instruments have been proposed but have yet to be adopted widely at the Community level. Community eco-taxes have been particularly controversial because they intervene in a domain perceived to be under the exclusive authority of member states.⁴ Tradable permits have encountered relatively less resistance, but the logistics of the application of such a scheme at the Community level remains challenging.

1. STRATEGIC AND PLANNING INSTRUMENTS

The purpose of planning instruments is to give guidance and framework expectations. Planning instruments signal to industry the expected level of compliance and performance. Planning instruments applied at the project level (EIAs) mandate that decisionmakers plan for the impact of a project on the environment with measures that compensate for and deflect major impacts. Strategic instruments go even further and demand the examination of policies/programs from an environmental perspective.

Planning instruments, as their name indicates, are not about regulatory details. Environmental action programs, for instance, are mostly declara-

⁴ The Community has not taxing and spending powers. Such powers are under the exclusive competence of member states.

tory of future goals and are deprived of specific standards and timetables. The lack of specific standards and deadlines, though, should not be seen as a disadvantage since the function of these instruments is primarily to guide future action.

The environmental impact assessment and strategic impact assessment instruments leave many of the factual circumstances of compliance to the discretion of executives and states. Implementation, thus, is not always consistent and could be disappointing. The disappointment with the EIA is a case in point especially during the 1980s when states' discretion was more extensive.⁵ The inclusion of more procedural controlling devices in 1990s version of these instruments should constrain state discretion and may lead to a more uniform application of these instruments.

1.1. Environmental Action Programs

Six Environmental Action Programs⁶ have been adopted since the Community resolved that the protection of the environment is part of the integration process. The first environmental action programs were schematic in nature. As time progressed, however, environmental action programs have become more substantive and are providing a discursive process about where the European Community is now and what it needs to accomplish with respect to the development and application of environmental law.

Environmental action programs are prepared by the Commission and provide the framework for future environmental action. Despite the differences in the objectives of the environmental action programs one can detect the re-iteration of some principles such as the preventive/precautionary approach to pollution, the polluter pays principle, the rectification of environmental damage at the source and the prudent utilization of natural resources.

⁵ See *infra* Section 1.2.

⁶ First Environmental Action Programme 1973-1976, OJ C 112/1, 20.12.1973;
Second Environmental Action Programme 1977-1981, OJ C 139/1, 13.06.1977;
Third Environmental Action Programme 1982-1986, OJ C 46/1, 17.02.1983;
Fourth Environmental Action Programme 1987-1992, OJ C 328/1, 7.12.1987;
Fifth Environmental Action Programme 1993-2000, OJ C 138/5, 17.05.1993;
Sixth Environment Action Programme, see Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme, OJ L 242/1, 10.09.2002.

The Fifth Environmental Action Program⁷ has had as its focus sustainable development.⁸ The program noted the general deterioration of the European Union environment with the exception of cleaner air. The program set priority areas of action including an integrated approach to pollution, clean transport, improvement of urban environment and the management of industrial hazards including nuclear safety. The program underlined the importance of cooperation at the international level and called for the adoption of various instruments to increase compliance.⁹

The Commission reviewed the program in 1995 and decided that increased attention needs to be placed on a number of areas:

- integrating environmental policy into other policy areas (especially agriculture and tourism);
- broadening the range of environmental instruments, including environmental taxes, and understanding the obstacles encountered in the adoption and administration of such instruments;
- simplifying instruments – including the use of framework legislation;
- increasing transparency and education;
- undertaking more initiatives at the international level;
- improving environmental information;
- and encouraging local and regional initiatives.¹⁰

In 1999 the Commission noted some of the successes of the Fifth Environmental Action Program namely: reduction of transboundary air pollution, phasing-out of ozone-depleting substances and better water quality. But it noted that other issues need to be addressed further especially that of integration of environmental policies into other policies, the development of quantitative objectives and indicators as well as the future of implementation given the impending enlargement.¹¹ The Sixth Environmental Action Program was launched to specifically address these concerns.

⁷ *Id.*

⁸ For an analysis of the concept of sustainable development, see Chapter 1, Section 2.2.

⁹ These instruments include: regulatory instruments, financial instruments, horizontal measures and financial support mechanisms (including the LIFE program, Structural Funds, the Cohesion Fund, EIB loans).

¹⁰ Progress Report from the Commission on the implementation of the European Community programme of policy and action in relation to the environment and sustainable development 'towards sustainability', COM (95) 624 final.

¹¹ Communication from the Commission concerning the global assessment of the European Community programme of policy and action in relation to environment and sustainable development, COM (1999) 543 final.

The Sixth Environmental Action Program¹² focuses on legislative innovation and implementation. In particular, the program declares that a strict legislative approach must not be viewed as the only approach to environmental issues. Instead, a variety of instruments must be used – including strategic instruments. Such strategic instruments must focus on:

- the better use of enforcement processes (strengthening the IMPEL network, coherent reporting, inspection standards¹³ and the utilization of the European Court of Justice);
- the integration of environmental policies into other policy areas;
- the development of voluntaristic instruments;
- the empowerment of citizens (through better access to information);
- and the incorporation of environmental considerations into land-use planning.

The focal areas of the Sixth Environmental Action Program are climate change (in particular the establishment of the EU-wide emissions scheme), biodiversity (the extension of Natura 2000 Network) and environment and health. The Sixth Environmental Action Program calls for specific goals with regard to waste management seeking a 20 percent reduction of the quantity of waste going to landfills by the year 2010 and a 50 percent reduction by the year 2050.

Environmental action programs have been successful in terms of helping to focus attention on the environmental issues of concern. The repeated calls, for instance, for an integrated approach to environmental issues gave the impetus for the adoption of the Directive on Integrated Pollution Prevention and Control.¹⁴ The constant reminder for a strategic approach to environmental problems eased the way for the adoption of Strategic Impact Assessment Directive.

1.2. EIA and SEA

Environmental Impact Assessment

The Environmental Impact Assessment (EIA) was adopted first in the United States as a way to assess the environmental implications of development projects.¹⁵ Since then the need for environmental impact

¹² See *supra* note 6.

¹³ See, e.g., Recommendation of the European Parliament and of the Council of 4 April 2001 providing for minimum criteria for environmental inspections in the Member States, OJ L 118/41, 27.04.2001.

¹⁴ See *infra* Section 2.2.

¹⁵ See National Environmental Policy Act (NEPA) of 1970, 42 U.S.C. 4321.

assessment before proceeding with a major project has been included in a large number of national and international environmental instruments.¹⁶

The United Nations Economic Commission for Europe (UN/ECE) Convention on Environmental Impact Assessment in a Transboundary Context¹⁷ contains, *inter alia*, extensively articulated rights for public participation.¹⁸ The EIA Convention lists the activities that are likely to cause an adverse transboundary impact and provides for environmental impact assessment procedures that include the involvement of all affected areas across state boundaries.¹⁹ The convention requires the party in which a harmful activity originates to inform the public of the affected country and take due account of the concerns of that country.²⁰

The Community adopted the first EIA Directive in 1985.²¹ The directive was subsequently amended in 1997.²² The amended version of the directive is more detailed regarding the requirements that a developer must meet and the number and nature of projects that fall under its scope. The purpose of the directive is to assess the environmental effects of public and private projects likely to have significant effects on the environment.²³ Member states are required to take measures that would ensure that projects likely to have an environmental impact are subject to a development consent and an assessment of their effects.

The projects for which EIAs are required are listed in the Annexes of the directive. Annex I lists all projects for which an EIA is necessary.²⁴ Annex

¹⁶ For instance, with regard to waste dumping and the protection of watercourses, see Patricia W. Birnie & Alan E. Boyle, *International Law and the Environment* 240, 327 (1994).

¹⁷ Convention on Environmental Impact Assessment in a Transboundary Context, Feb. 25, 1991, reprinted in 30 I.L.M. 800 (1991) [hereinafter EIA Convention]. The Convention has been supplemented by a Protocol on Strategic Environmental Assessment, see Protocol on Strategic Environmental Assessment to the UNECE Convention on Environmental Impact Assessment in a Transboundary Context, May 21, 2003 available online http://www.unece.org/env/eia/sea_protocol.htm.

¹⁸ See art. 2(2) & (6) & art. 4(2), EIA Convention, *id.*

¹⁹ Art. 5, *id.*

²⁰ Art. 6(1), *id.*

²¹ Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, OJ L 175/40, 05.07.1985.

²² Council Directive 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, OJ L 73/5, 14.03.1997 [hereinafter EIA Directive].

²³ Art. 1, *id.*

²⁴ Art. 4(1), *id.* Such projects include: crude-oil refineries, thermal power stations (300 megawatts or more); installations for the reprocessing of nuclear fuel; installations for the production of asbestos; integrated chemical installations; construction of airports and long-distance railway traffic; groundwater

II includes projects for which an EIA is required subject to certain criteria and thresholds.²⁵ The criteria and thresholds that are necessary are explicitly general in the directive so as to allow for a margin of discretion with regard to the nature and magnitude of projects to be evaluated from an environmental perspective. After putting together Annex I and Annex II, however, the directive seems to cover most of potentially polluting industries (with the exception of the defense industry).

For the projects for which an EIA is required, the developer must provide specific information that includes:

- a description of the project and of the measures taken to avoid and reduce environmental impact;
- the data to identify and assess the effects of the project on the environment;
- and an outline of the main alternatives studied before the selection of the project.²⁶

The directive provides that authorities – who because of their specific environmental responsibilities are concerned with a project²⁷ – must be provided with an opportunity to express an opinion on the project.²⁸ The public must be informed also – within a reasonable time – so as to be able to express an opinion before the development consent is granted.²⁹ The directive provides for detailed consultations between states in case a

abstraction; works with regard to the transfer of water resources between river basins; large waste treatment plants; extraction of petroleum and natural gas; dams; pipelines for the transport of gas, oil and chemicals; and industrial plants.

²⁵ Art. 4(2), *id.* Under this Annex a large number of industries is covered from agriculture to food production and from tourism to waste management. The criteria and thresholds for requiring an environmental impact assessment for these industries are provided for in Annex III of the directive.

The criteria have to do:

- with characteristics of the project itself (the size of the project, the use of natural resources, the production of waste, pollution and nuisances);
- the location of the project (for instance, whether the project is located close to a protected area, densely populated area, or heavily polluted area in need of restoration);
- and the characteristics of the potential impact of the project (the extent of impact given the geographical area and the size of the affected population; the transfrontier nature of the impact; the magnitude and the complexity of the impact; the probability of the impact and its duration; the frequency and reversibility of the impact).

²⁶ Art. 5(1), *id.* The developer must provide also a non-technical summary of all the information submitted. More details on what information the developer must provide are included in Annex IV. *Id.*

²⁷ For instance, environmental ministries and land-use planning boards.

²⁸ Art. 6(1), EIA Directive, *supra* note 22.

²⁹ Art. 6(2), *id.*

development project is bound to have transboundary environmental impacts.³⁰

The amended version of the EIA Directive was to be transposed into national legislation by 1999. Hopefully this version of the directive will have more impact on how Environmental Impact Assessments are compiled and their effectiveness in protecting the environment. A recent study has demonstrated that the application of EIAs by the European Community, the Organization for Economic Co-operation and Development (OECD) and the World Bank has been ineffective. Some problems with the execution of EIAs include the lack of analysis of alternative projects, weak mitigation measures and the absence of monitoring and implementation. Public participation is also marginal especially with regard to affected populations.³¹ In a recent implementation report the Commission noted that most complaints regarding EIAs focus on the lack of quality and lack of weight given to impact assessments and on issues of fact that are difficult for the Commission to assess.³²

Strategic Environmental Assessment

The Community has adopted Strategic Environmental Assessment (SEA)³³ as a means to address the limitations of EIA. The EIA and the SEA differ in their scope. The EIA takes place after a policy has been decided for the projects that would implement the policy. The SEA takes place at the level of policy formulation. For instance, if a government decides to cover its energy needs by using more coal than other resources EIA can be used to assess the effects of coal use on the environment for each and every individual project that implements the policy. On the contrary, SEA would be applied at the point the government makes a decision on the methods to cover its energy needs. In practice what differentiates the SEA from the EIA is that the SEA is applicable before a plan or program is adopted or submitted to legislation³⁴ while the EIA is applicable after a plan or program is adopted for the individual projects that implemented it.

A SEA, whenever is performed, is likely to reduce the number and scope of EIAs since many of the issues and alternatives usually addressed at the

³⁰ Art. 7, *id.*

³¹ Elli Louka, *Biodiversity & Human Rights* 127 (2002).

³² Commission of the European Communities, Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 9, SEC (2003) 804, 07.07.2003.

³³ Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment, OJ L 197/30, 21.07.2001 [hereinafter SEA Directive].

³⁴ Art. 4(1), *id.*

EIA level would be addressed at the level of SEA. Despite the possibilities of implementation of SEA at the policy level, most SEAs today are performed at the program and planning level.

The Community has adopted SEA today as a wider implementation of the environmental impact assessment at the level of plan and program formulation. The purpose of the SEA Directive is to apply environmental considerations during the preparation of plans and programs that are likely to have significant effects on the environment. The directive applies to all plans and programs for which an EIA is required as well as plans and programs that may affect sites protected under the Habitats Directive.³⁵ The directive does not apply to plans and programs that have to do with national defense or civil emergency and financial budget plans and programs.³⁶

States may decide to apply the directive on a case-by-case basis or by specifying – with an overarching legislation – the types of plans and programs subject to SEA or by combining both approaches.³⁷ In any case they must use specific criteria that would be helpful in identifying plans/programs likely to have significant effects on the environment.³⁸

When a SEA is required for a plan/program an environmental report must be prepared which must contain detailed information on the environmental effects of the program.³⁹ This report and the plan/program must be made available to the public and the appropriate authorities as identified by member states.⁴⁰ The report must be available also to states that are to be affected by the implementation of plan/program through a consultation process provided for in the directive.⁴¹ The final adoption of

³⁵ Art. 3(2), *id.*

³⁶ Art. 3(8), *id.*

³⁷ Art. 3(5), *id.*

³⁸ Annex II, *id.* Such criteria include:

the degree to which a plan/ program sets a framework for projects and other activities; the degree to which a plan/program influences other plans/programs; the relevance of a plan/program for the implementation of Community legislation on the environment. Criteria have to do also with the nature of effects (e.g., probability, duration, frequency and reversibility of effects) and the area likely to be affected (the value and vulnerability of the area including special characteristics of natural and cultural sites).

³⁹ Art. 5, *id.* Annex I includes details of the information that must be provided:

existing environmental problems; the environmental protection objectives set by the Community, a member state or by international legislation; the likely significant effects on the environment; the measures envisaged to prevent or reduce the adverse impacts; and measures regarding monitoring. *Id.*

⁴⁰ Art. 6, *id.*

⁴¹ Art. 7, *id.*

plan/program must include a statement on how environmental considerations have been integrated into the plan/program and account for and respond to opinions expressed by the public and the appropriate public authorities.⁴²

Given the recent adoption of SEA, it is too early to make conclusive statements on whether it would be successful in furthering the incorporation of environmental considerations into the policymaking process. Since the directive is a framework directive it would be helpful if the Commission publishes an implementation guide that would provide a unified format for a Community-wide SEA.

2. VOLUNTARISTIC INSTRUMENTS

Voluntaristic instruments provide industry with an opportunity to improve its performance before the adoption of command-and-control rules. The EMAS Regulation encourages industry to review its environmental performance the way it reviews its economic performance. The instrument attempts to trans-mutate private sector principles, endorsed by public authorities, back to private enterprises with the instruction to apply them for the purposes of environmental protection.

The IPPC Directive appeals similarly to industry's enlightened self-interest. It prescribes the best available technologies to be used to improve environmental performance. The directive, despite its non-mandatory nature, signals to industry the future acceptable corporate behavior.

2.1. *Eco-management and Audit Scheme*

The Community Eco-management and Audit Scheme (EMAS) was adopted in 2001.⁴³ The EMAS is addressed to companies and institutions that wish

⁴² Art. 9, *id.*

⁴³ Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing voluntary participation by organizations in a Community eco-management and audit scheme (EMAS), OJ L 114/1, 24.04.2001 [hereinafter EMAS Regulation].

The Community EMAS system has been influenced by ISO 14001. The ISO is a non-governmental organization comprised of 147 national standards institutes. It promulgates non-mandatory standards for companies to follow.

The EMAS system prescribed by the Community is in many respects stricter than ISO 14001, the eco-management system proposed by the ISO. For instance, the EC EMAS requires a certain timeframe for the achievement of environmental objectives, the assurance that a company's suppliers would comply with its environmental policies, and an audit per year. On the contrary, the ISO regulation does not require a timeframe for the achievement of environmental objectives. It provides that suppliers must be informed about a company's environmental policy – but does not mandate a proof of their compliance – and does not

to improve their environmental performance by establishing an environmental management system and the auditing of such a system. In order to participate in the EMAS system prescribed by the Community an organization must go through specific requirements that involve six steps:

- a review of the current activities of the organization;⁴⁴
- the definition of an environmental policy and the preparation of an environmental statement;⁴⁵
- a plan to meet objectives and targets;
- implementation;
- monitoring and corrective action;
- auditing.⁴⁶

The *review* covers five key areas:

- the legislative, regulatory and other requirements that apply to an organization;
- the impact on the environment of its operations;
- criteria for assessing the significance of environmental impact;
- evaluation of existing environmental management systems;
- and evaluation and feedback from prior environmental incidents.⁴⁷

The purpose of the review is to examine the strengths and weaknesses of an organization with regard to implementation of an environmental management system. It has been proposed that this can be accomplished best by interviewing key people and by analyzing existing documents and procedures pertaining to environmental matters.⁴⁸ The result of an environmental review would be compiled ideally in what has been called an 'environmental exposure portfolio' which identifies the range of compliance with current regulations and identifies the issues on which a company must focus to maintain or increase its level of compliance.⁴⁹ The review makes up the baseline against which future performance is evaluated.

After conducting a review the organization must develop an *environmental policy* that includes a commitment to comply with current standards and provides a framework for setting and reviewing environmental objectives

provide for audit intervals.

⁴⁴ Art. 3(2)(a), EMAS Regulation, *id.*

⁴⁵ Art. 3(2)(c), *id.*

⁴⁶ Art. 3(3), *id.*

⁴⁷ Annex VII, *id.*

⁴⁸ Andreas Sturm, ISO 14001 – Implementing an Environmental Management System 26 (Ellipson Management Consultants, Switzerland, 1998).

⁴⁹ *Id.* at 28.

and targets.⁵⁰ The policy must be documented and communicated to all employees. It must be available also to the public. An *environmental statement* follows the articulation of an environmental policy. The purpose of an environmental statement is to inform the public about the environmental impact of an organization and its desire for continuous improvement of its environmental performance. The environmental statement must include: a clear description of the organization, activities, products and services; the environmental policy and environmental management system; the environmental impacts; the targets and objectives; environmental performance against the targets and objectives; and the name and accreditation number of the environmental verifier.⁵¹

Planning is an important phase in the application of the EMAS. This is the phase during which the organization actually establishes objectives and targets and a program for achieving its objectives.⁵²

The fourth phase of EMAS involves the actual *implementation* of objectives and targets – what an organization actually does to comply with the targets it set for itself. Important elements of this phase are: assigning responsibility to appropriate key employees, training, and mechanisms of communication to internal and external stakeholders. The organization must identify the documents that are important, provide a system for their update and must be able to forward them to the competent authorities if this is necessary.⁵³

The fifth phase involves *monitoring* and *corrective action*. The organization must monitor its activities and keep records of its performance.⁵⁴ It has been proposed in this context that the organization must establish an environmental effects register where the inputs (water, mineral resources, air) and outputs (waste, emissions) of the organization must be registered. The purpose of such a register is to assess actual performance against the targets and objectives that the organization set for itself.⁵⁵ Monitoring involves taking action in cases of non-compliance. The organization is required to establish procedures for defining responsibility in cases of non-compliance.

⁵⁰ Annex I, I-A.2, EMAS Regulation, *supra* note 43.

⁵¹ Annex III, *id.*

⁵² Annex I, I-A.3, *id.*

⁵³ Annex I, I-A.4.I, *id.*

⁵⁴ Annex I, I-A.5, *id.*

⁵⁵ Strum, *supra* note 48, at 44-48.

The sixth phase involves *auditing* and *review*. The top management of the organization conducts periodic reviews to ensure that the environmental management system is applied properly.⁵⁶ An organization can perform its own internal environmental auditing.⁵⁷

The muscle of EMAS, though, lies in external environmental auditing. The regulation provides that states must establish an independent accreditation body that will administer a system for the accreditation of independent environmental verifiers.⁵⁸ This independent accreditation body is to establish a fair process for the accreditation of environmental verifiers and it must supervise their activities. It must publish and update a list of such verifiers.⁵⁹ Organizations that have been confirmed by environmental verifiers as applying the EMAS system can receive the EMAS logo.⁶⁰

Whether a company would incorporate an EMAS system depends on the calculation of costs and benefits. A discouraging factor in the implementation of EMAS or any other environmental management system is that the costs (e.g., shifting human resources to environmental management, capital investment) are obvious but the benefits cannot be identified in strict financial terms (unless they have to do with the improvement of operations). Benefits usually have to do with stakeholder and employee satisfaction, concepts difficult to quantify.⁶¹ For organizations that have no environmental management system, the identification of benefits is clearer. For organizations that already apply an environmental management system the application of EMAS has marginal benefits. In those cases the application of EMAS may be detrimental since it may shift the focus of an organization from improving environmental performance to perfecting the environmental management system.⁶²

The EMAS is vulnerable because much of its execution depends on the development of the right processes that, in turn, have to do with employee performance and training. Lack of training with the EMAS requirements – no matter how good the system established – is bound to lead to system

⁵⁶ Annex I, I-A.6, EMAS Regulation, *supra* note 43.

⁵⁷ Annex II, *id.*

⁵⁸ Art. 4, *id.*

⁵⁹ Art. 7, *id.*

⁶⁰ Art. 8, *id.* See also Annex IV, *id.*

⁶¹ Pan European Local Authority Eco-Management and Audit Scheme, Implementing EMAS in Europe's Local Authorities 20, Final Technical Report, Oct. 2001 (EURO-EMAS, LIFE98, ENV/UK000605).

⁶² *Id.*

deterioration.⁶³ Experience with EMAS has shown that its success requires a person or a team of people to push the concept inside an organization. This is especially so with organizations with no experience with EMAS systems.⁶⁴

2.2. Integrated Pollution Prevention and Control

The focus of the concept of integrated pollution prevention and control is the management of pollution in all media (air, water, soil) so as to avoid the transfer of pollution from one medium to another.

The purpose of the Integrated Pollution Prevention and Control (IPPC) Directive⁶⁵ is to prevent or reduce emissions in the air, water and land from polluting activities in order to achieve a high level of protection for the environment taken as whole.⁶⁶ Thus certain polluting activities cannot be performed⁶⁷ without authorization. The permits must be based on the best available technique (BAT). The best available techniques are defined loosely in the directive.⁶⁸ Some guidance is provided with regard to the criteria that would help identify what constitutes BAT.⁶⁹ The prescription of a BAT must take into account the technical characteristics of an installation, its geographical location and the local environmental conditions. Given the loose articulation of the BAT, the muscle of the directive is provided in article 18(2). According to this article, the absence of specific standards in the IPPC directive should be interpreted as an effective application of standards established by other Community

⁶³ *Id.* at 19.

⁶⁴ *Id.* at 33.

⁶⁵ Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control, OJ L 257/26, 10.10.1996 [hereinafter IPPC Directive].

⁶⁶ Art. 1, *id.*

⁶⁷ The industrial installations referred to in Annex I include: energy industries, the production and processing of metals, the mineral industry, waste management, and other activities including the production of pulp, pre-treatment or dyeing of fibers, the production of food products, installations for the surface treatment of substances including dressing, printing, coating and degreasing. *Id.*

⁶⁸ Art. 2(11) of the directive defines best available techniques broadly: “‘best available techniques’ shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practicable suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole” *Id.*

⁶⁹ Annex IV provides for the criteria that must be taken into account in deciding what constitutes BAT: the use of low-waste technology, the use of less hazardous substances, the promotion of recycling and recovery; the consumption and nature of raw materials; the need to prevent impact on the environment and the need to reduce accidents. *Id.*

legislation.⁷⁰ In addition, a list of substances for which standards must be set is provided.⁷¹ The directive provides also for the development of a European Pollutant Emission Register (EPER).⁷²

The application of the directive is based on the exchange of information between member states regarding the best available technologies that should apply to each industry sector.⁷³ This exchange of information is today highly organized and coordinated by the IPPC Bureau that has divided information into thirty sectors in accordance with the number of sectors identified in Annex I of the directive. For each sector it takes about two years to develop the so-called BREFs (BAT reference documents).⁷⁴ The BREFs contain information about the best available techniques that apply to each industrial sector but, as prescribed by the directive, they are not obligatory documents. Despite the lack of obligatory character, the BREFs are supposed to be the documents that would contain the most updated information on the best available techniques for controlling pollution in a specific sector. It is proposed that they must be disseminated actively and used internationally as 'the voice of Europe on BAT'.⁷⁵

The directive provides for the right of public to information regarding permit applications, monitoring reports and the EPER.⁷⁶ In addition the BREFs are available on the IPPC website. The directive itself does not

⁷⁰ Annex II provides for the specific directives that must be complied with. *Id.*

⁷¹ See Annex III. For the protection of the air such substances include: sulphur dioxide, oxides of nitrogen, carbon monoxide, volatile organic compounds, metals and their compounds, dust, asbestos, chlorine, fluorine, arsenic, cyanides, polychlorinated dibenzodioxins and polychlorinated dibenzofurans as well as all substances which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction. *Id.*

For the protection of water such substances include:

organohalogen compounds, organophosphorus compounds, organotin compounds, persistent hydrocarbons and persistent bioaccumulable organic toxic substances, cyanides, metals and their compounds, arsenic and its compounds, biocides, materials in suspension, substances which contribute to eutrophication, substances which have an unfavorable influence on oxygen balance as well as substances which have been proved to possess carcinogenic or mutagenic properties which may affect reproduction in or via the aquatic environment. *Id.*

⁷² Art. 15(3), *id.*

⁷³ Art. 16(2), *id.*

⁷⁴ The directive does not explicitly refer to BREFs. The IPPC Bureau decided that BREFs are the best way to codify the exchange of information.

⁷⁵ For instance BREFs could be used within the context of OSPAR or HELCOM, see Chapter 5, Section 3.2. See also Almut Reichel, *Introduction and Summary of Discussion*, in *The Sevilla Process: A Driver for Environmental Performance in Industry 5, 7*, European Conference Proceedings, Stuttgart, April 6-7, 2000.

⁷⁶ Art. 15, IPPC Directive, *supra* note 65.

provide, though, for a right to participation in the formulation and final articulation of BREFs.

Environmental groups have deplored the absence of an institutionalized right to participation in the directive.⁷⁷ Environmental groups currently participate in the preparation of BREFs but since their participation is not mandatory, their comments could be omitted. Also because rules of procedure do not exist, environmental groups are frequently outvoted by the industry. Environmental groups have criticized the process through which BREFs are constituted. The BREFs are developed through discussions of Technical Working Groups (TWGs)⁷⁸ which are dealing with specific sectors of the industry. The TWGs are supposed to make decisions on the best available techniques for a specific sector. Leaders in environmental innovation, though, are often not included in the discussions. Thus best available techniques that have been applied are suppressed from documents and companies that use them are treated as peculiarities.⁷⁹ The costs of applying new technologies are often exaggerated in comparison with the benefits. Given the lack of adequate reporting on current performance levels and lack of specific criteria for the selection of BAT, environmental groups and the industry have to resort often to political compromise.⁸⁰ Such compromise frequently benefits the industry since environmental groups do not have the resources that the industry has to devote to the process.

The industry has been more concerned with preserving the flexible and non-obligatory character of BREFs. The industry has insisted that the environmental performance required by BREFs should be based on a range of values rather than a fixed number. The industry has underlined also that the selection of BAT should be based on practical application and demonstrated performance.⁸¹ The industry seems to be disappointed that for many of the current BREFs only the executive summary is translated into all languages; and that many BREFs, because of their volume, are cumbersome to decipher and to quickly apply.⁸²

⁷⁷ Joachim Lohse & Knut Sander, *Is the BREF process a success or failure – an NGO perspective*, in *The Sevilla Process* 61, *supra* note 75.

⁷⁸ *Id.* at 62.

⁷⁹ *Id.* at 63-64.

⁸⁰ *Id.* at 64.

⁸¹ Eddy van Bouwel, *Expectations of the Chemical Industry Faced to the BREF process*, in *The Sevilla Process* 25, 27, *id.*

⁸² For instance the BREF for the Non-Ferrous Metals Industry is seven hundred and sixty one pages long and has an executive summary of eighteen pages. See Javier Targhetta, *Lessons and Expectations arising from the Non-Ferrous Metals BREF Note*, in *The Sevilla Process*, 29, 30, *id.*

2.3. Environmental Agreements

Environmental agreements have been hailed in some *fora* as a resurgence of contractualization, neo-voluntarism and the deregulation of environmental policy.⁸³ Environmental agreements between industry and state authorities on the desirable environmental standards are a way to ease rather than command-and-control environmental performance. European countries have adopted different approaches to environmental agreements. In some countries environmental agreements are 'hard' legislation and are stringently enforced. In other countries they are softer instruments the purpose of which is to invite rather than to compel compliance. In Germany, for instance, environmental agreements take the form of unilateral declarations – self-commitments.⁸⁴

Environmental agreements, because they are executed between industries and states, have been attacked by environmental groups as inhibitors of the democratic process and as obstacles to their participation in environmental decisionmaking.⁸⁵ The contractualization of environmental policy, it is feared, would diminish the power of the civic society and even the regulatory role of the state.

The European Community has showed, up to this point, preference for the legally binding type of environmental agreements. The Auto-Oil Programs that have been adopted by the Community with regard to the reduction of air pollution are an example of environmental agreements at the Community level.⁸⁶ The programs led eventually to the adoption of legislation that commanded compliance.

3. INFORMATION INSTRUMENTS

3.1. Access to Information and Justice and Right to Participation

Access to Information

The Convention of UN/ECE on Access to Information, Public Participation in Decisionmaking and Access to Justice in Environmental Matters

⁸³ Eckard Reh binder, *Environmental Agreements: A New Instrument of Environmental Policy*, European University Institute, Robert Schuman Center for Advanced Studies, RSC No 97/45 (1997).

⁸⁴ *Id.* at 4.

⁸⁵ *Id.* at 11.

⁸⁶ For more details on the Auto-Oil Programs, see John McCormick, *Environmental Policy in the European Union* 191-93 (2001).

was adopted in 1998 and entered into force in 2001.⁸⁷ The convention is the first international instrument that develops the procedural right of the public to access information, to participate in decisionmaking and to access justice. As such the convention, despite all the exceptions that, if read widely, could defeat its purpose, is considered a revolutionary instrument that recognizes in practical terms a human right to a healthy environment.

While the convention gives flesh and blood to a right to a healthy environment, it is not the first instrument to recognize such a right. Many other instruments implicitly or explicitly have done so in the past.⁸⁸ The convention, however, went many steps further than usually expected for international environmental law instruments by providing the procedures through which the right to information and participation can be materialized.

Many states are reluctant to provide information either because they do not conceive it to be their function to do so or because they are weary about the consequences of the provision of too much information on their power to control their electorate. Thus the right to information appears to increase the transparency and openness of states since it allows citizens to have access to information at states' disposal. At the same time, though, peculiarly this seemingly democratic right empowers states because it makes legitimate their role as collectors and organizers of information. A role that states could exploit even in the collection of private information.

The right to access information, the right to participation in decision-making and the right to access to justice have been called the three pillars of the convention.

⁸⁷ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, June 25, 1998, *reprinted in* 38 I.L.M. 517 (1999) available online <http://www.unece.org/env/pp> [hereinafter Aarhus Convention].

⁸⁸ The oldest instrument to recognize explicitly a human right to 'a satisfactory environment' is the 1981 African Charter of Human and Peoples' Rights. In 1988 an Additional Protocol to the American Convention on Human Rights established a right to a healthy environment. The 1995 Sofia UN/ECE Guidelines on Access to Environmental Information and Public Participation in Environmental Decision-making were endorsed at the Third Ministerial Conference 'Environment for Europe' and expressly referred to the right to information, participation and access to justice. For other instruments that refer to the rights included in the Aarhus Convention. See *The Aarhus Convention: An Implementation Guide 2-4*, ECE/ECEP/72 (prepared by Stephen Stec & Susan Casey-Lefkowitz, 2000) [hereinafter Guide].

Before delving into the articles of the convention, one has to clarify the definition of public authorities against which the information and participation rights can be asserted. The definition of public authority is quite inclusive and comprises what would be considered traditionally public authorities⁸⁹ and natural or legal persons having public responsibilities or functions, or providing public services in relation to the environment under the control of a traditional public authority.⁹⁰ This includes government-created and/or government-financed corporations that perform public functions. In the U.K., for instance, public functions are performed now by private companies. Such private companies, because they perform public functions, fall under the scope of the convention.⁹¹ Environmental information, as defined under the convention, is quite inclusive also.⁹²

The convention is explicit that persons, organizations or groups that exercise their rights under the convention:

- must be recognized and supported;⁹³
- shall in no way be penalized, persecuted or harassed for their involvement;⁹⁴
- shall have access to rights established under the convention without discrimination as to citizenship, nationality or domicile.⁹⁵

The convention supports what has been called active and passive access to information.⁹⁶ Passive access to information has to do with the right of public to gain access to information at its request.⁹⁷ Active access to information speaks of a government's duty to collect and disseminate information on its own initiative.⁹⁸

To provide access to information, information must be collected. The state, according to the convention, must be involved heavily in the collection and dissemination of environmental information. Public authorities not only must possess and update environmental information

⁸⁹ See art. 2(2)(a)&(b), Aarhus Convention, *supra* note 87.

⁹⁰ Art. 2(2)(c), *id.*

⁹¹ Guide, *supra* note 88, at 33.

⁹² Environmental information means any information in written, visual, oral, electronic or any other material form. See art. 2(3), Aarhus Convention, *supra* note 87.

⁹³ Art. 3(4), *id.*

⁹⁴ Art. 3(8), *id.*

⁹⁵ With regard to legal persons, access to information is allowed without discrimination as to where the registered seat is or the effective center of activities is. See art. 3(9), *id.*

⁹⁶ Guide, *supra* note 88, at 49.

⁹⁷ Art. 4, Aarhus Convention, *supra* note 87.

⁹⁸ Art. 5, *id.*

that is relevant to their functions⁹⁹ but also must establish mandatory systems to ensure the adequate flow of information.¹⁰⁰ Public authorities must disseminate information to the public in the event of an imminent threat to human health and the environment in order to prevent and mitigate harm coming from the threat.¹⁰¹

If information is available but in a manner difficult to obtain, the purpose of the convention will be defeated.¹⁰² Effective access to information, the convention prescribes, can be accomplished by a variety of means: publicly accessible lists, registers and files, positive official support and the identification of points of contact.¹⁰³ States are required to ensure that all information becomes available in electronic databases easily accessible through public telecommunications networks.¹⁰⁴

States are required to establish a coherent, nationwide and publicly accessible database – compiled through standardized reporting.¹⁰⁵ States are required also to publish facts considered relevant for major environmental issues and to make accessible relevant explanatory material.¹⁰⁶ To increase the availability of information states must encourage the application of the EMAS and the voluntary eco-labeling scheme.¹⁰⁷

The requirement not only to provide information but also to organize it so that it can be effectively accessed is the innovative element of the convention. The goal is for pollution inventories to contain information on discharges and emissions of each and every polluter so that the public could name and shame polluters. The wide publication of non-compliance – which could damage corporate reputations – is what the directive is relying on to foster implementation. However, as mentioned above, the right to information, despite its democratic epiphany, could become an

⁹⁹ Art. 5(1)(a), *id.*

¹⁰⁰ Art. 5(1)(b), *id.*

¹⁰¹ Art. 5(1)(c), *id.*

¹⁰² The difference between making information available publicly and making it available in a user-friendly form is illustrated by a website set by NGOs in the U.K. The NGOs took publicly available information from the U.K. Environment Agency Chemical Release Inventory and put it in a new GIS-type database. The new website has attracted public interest that did not exist before the development of the GIS-type database. *See* Guide, *supra* note 88, at 71.

¹⁰³ Art. 5(2)(b), Aarhus Convention, *supra* note 87.

¹⁰⁴ The information that could be downloaded from the internet includes: reports on the state of the environment, texts of legislation referring to the environment, policies, plans and programs relating to the environment. *See* art. 5(3), *id.*

¹⁰⁵ Art. 5(9), *id.*

¹⁰⁶ Art. 5(7), *id.*

¹⁰⁷ Art. 5(6) & (7), *id.*

intimidating tool in the hands of states. States elated in their now legitimate role as collectors and organizers of information may be willing to accumulate all kinds of information based on various public interest objectives.

The convention provides explicitly that authorities must respond to requests of information – within the framework of national legislation – with copies of actual documentation¹⁰⁸ without requiring the public to demonstrate an interest and in the form that the public requested.¹⁰⁹ The convention provides explicitly that information requested must be provided within a month after a request has been received.¹¹⁰

There are significant exceptions, however:

- the one month deadline can be extended to two months when the volume and complexity of information justify such an extension;¹¹¹
- the information can be provided in a different form than that requested by the public.¹¹²

The request can be refused also:¹¹³

- if it is manifestly unreasonable or formulated in too general a manner;¹¹⁴
- if it concerns material in the course of completion or internal communications of public authorities when such an exception is provided by national law or customary rights;
- if it violates the confidentiality of proceedings of public authorities;
- if it adversely affects international relations, national defense or public security;¹¹⁵

¹⁰⁸ The requirement to have access to ‘actual documents’ exists already in many countries. In Portugal, for instance, the right to access information includes the right to be informed that a document exists and the right to obtain a copy of the document. *See Guide, supra* note 88, at 54.

¹⁰⁹ Art. 4(1)(a), Aarhus Convention, *supra* note 87.

¹¹⁰ Art. 4(2), *id.*

¹¹¹ Art. 4(2), *id.*

¹¹² Art. 4(1)(b), *id.* A test of reasonableness should apply if information is provided in another form than that requested. Informing the applicant about the existence of a single copy of a book, which contains the information, located far from her/his residence cannot be considered an adequate response. *See Guide, supra* note 88, at 55.

¹¹³ Art. 4(3), Aarhus Convention, *supra* note 87.

¹¹⁴ The French courts have ruled, for instance, that requests for all documents relating to a specific species and all environmental impact assessments are too general. Requests are considered general if they would involve hundreds or thousands of documents. *See Guide, supra* note 88, at 57.

¹¹⁵ The public security exception is too broad of an exception. Certain states have established steps that would help the public determine whether information should be considered a state secret. *Id.* at 59.

- if it hampers the ability to receive a fair trial or criminal/disciplinary proceedings;
- if it adversely affects the confidentiality of commercial and industrial information or other legitimate economic interest¹¹⁶ including intellectual property rights with the exception of information on emissions;¹¹⁷
- when it corrupts the confidentiality of personal data where such confidentiality is provided for in national legislation;
- when the interests of a third party who supplied the information would be affected and that party has not consented to the release of the information.

The sheer number and indefinite character of many of these exceptions could undermine seriously the purpose of the convention. Therefore, even in the text of the convention, it is provided that the grounds for refusal must be interpreted strictly by performing a cost-benefit analysis between the public interest served by the disclosure and the interest protected by non-disclosure.¹¹⁸ Refusal must be in writing if the applicant requests so, must state the reasons for denying information and be provided within one month or, for complex requests, within two months after the request has been submitted. The refusal must contain information on the process of appeal.¹¹⁹ A public authority that does not possess a certain kind of information must refer an applicant to another authority.¹²⁰ Parties can charge for supplying information but the charges are not supposed to inhibit the access to information.¹²¹

Right to Participation

One of the first instruments to refer to a right to participation is the UN/ECE Convention on Environmental Impact Assessment. The convention explicitly states that the assessment of proposed activities likely to have an environmental impact should take place with the participation of the public.

¹¹⁶ Parties have been encouraged to define what constitutes legitimate economic interest and establish a process that would help identify whether the non-disclosure of information serves really a specific legitimate economic interest. *Id.* at 60.

¹¹⁷ The fact that emissions cannot be considered confidential is significant given that, without information on emissions, most environmental groups would be unable to target their action.

¹¹⁸ Art. 4(4), Aarhus Convention, *supra* note 87.

¹¹⁹ Art. 4(7), *id.*

¹²⁰ Art. 4(5), *id.*

¹²¹ Art. 4(8), *id.*

The Aarhus Convention establishes three types of participation:

- public participation in decisions on specific activities called here *specific public participation*;¹²²
- public participation concerning plans, programs and policies relating to the environment called here *general public participation*;¹²³
- and public participation in the preparation of executive regulations and of legally binding instruments called here *normative public participation*.¹²⁴ The general themes that run through these types of participation include:
 - *reasonable timeframes* – that public participation procedures should allow sufficient time to inform the public and for the public to prepare and participate effectively;
 - *early in the process* – that public participation should occur early in the process when all options are still open;
 - *accounting for results* – that the state must take into account the results of public participation.

With regard to specific participation, the activities to which this type of participation applies are listed in the Annex to the convention¹²⁵ but it is provided that other activities could be included that may have significant environmental impact¹²⁶ in accordance with national law.¹²⁷ The public must receive notice early in the process in an adequate, timely and effective manner.¹²⁸ This means that just posting a notice in any public medium will not be adequate and effective if the public concerned does not have access to the medium or the information is buried amidst all other sorts of information.¹²⁹ Individual notice may be necessary also according to the circumstances.¹³⁰

The convention provides that for a notice to be effective, it must include *inter alia*: the proposed activity, the nature of possible decisions and draft

¹²² Art. 6, *id.*

¹²³ Art. 7, *id.*

¹²⁴ Art. 8, *id.*

¹²⁵ Annex I provides for many of the activities included in the EIA Convention, the IPPC Directive and the EIA Directive. *Id.*

¹²⁶ Activities with significant impact on the environment are defined in Annex III of the EIA Convention. *Id.*

¹²⁷ Art. 6(1)(a)&(b), *id.*

¹²⁸ Art. 6(2), *id.*

¹²⁹ Guide, *supra* note 88, at 96.

¹³⁰ Art. 6(2), Aarhus Convention, *supra* note 87. For instance, the Polish Environmental Protection Agency requires the relevant authorities to draw a list of environmental NGOs that are interested in receiving notifications relating to EIA. When the Agency's decision involves a project that requires an EIA, the Polish authorities must notify in writing all the environmental NGOs located in the affected area. See Guide, *supra* note 88, at 96.

decisions, and the public authority responsible for making decisions. The notice should include also information about the participation procedure itself – namely when the procedure starts; the opportunities for the public to participate; the time and venue; and an indication of the type of environmental information already available.¹³¹ The public authority must enable the public to participate by providing all the information that would be relevant in decisionmaking. This includes the site and physical and technical characteristics of the proposed activity, the effects of the activity on the environment, the measures envisaged to prevent and reduce adverse effects, an outline of the main alternatives and a non-technical summary.¹³² In other words, and for the countries that have adopted the EIA convention,¹³³ this convention specifically requires authorities to provide the public with documentation potentially included in an EIA.¹³⁴

General public participation in plans and programs¹³⁵ is authorized also under the convention but the provision is not as detailed as the provision for specific participation.¹³⁶ It is provided, though, that participation in plans and programs must take place under ‘a transparent and fair framework’ which indicates that, at least, participation must be effective. The requirement for public participation in plans and programs links this convention to the SEA Directive that provides for the environmental assessment of plans and programs.¹³⁷ The convention becomes even more laconic with regard to participation in environmental policies.¹³⁸

Regarding normative participation, it is underlined that the public should be given the opportunity to comment either directly or through representative consulting bodies¹³⁹ on the preparation of executive regulations and legally binding instruments. Draft rules should be published and be available publicly.¹⁴⁰

¹³¹ Art. 6(2), Aarhus Convention, *supra* note 87.

¹³² Art. 6(6), *id.*

¹³³ Most countries that belong to the Economic Commission for Europe (ECE) apply some sort of EIA.

¹³⁴ The convention explicitly refers to EIA in article 6(2)(e). *See* Aarhus Convention, *supra* note 87.

¹³⁵ This may include plans and programs regarding tourism, land use, transport as well as strategies on health, sanitation and water resources. *See* Guide, *supra* note 88, at 115.

¹³⁶ Art. 7, Aarhus Convention, *supra* note 87.

¹³⁷ *See supra* Section 1.2.

¹³⁸ “To the extent appropriate, each Party shall endeavor to provide opportunities for public participation in the preparation of policies relating to the environment.” *See* art. 7, Aarhus Convention, *supra* note 87.

¹³⁹ Art. 8(c), *id.*

¹⁴⁰ Many countries have already procedures on the publication of draft rules, *see* Guide, *supra* note 88, at 121.

Access to Justice

Access to justice is provided for in the convention when the request for information has been refused wrongfully, has been ignored or inadequately answered. Under these circumstances, the convention provides that the public should have access to a review procedure before a court or an independent and impartial body.¹⁴¹ The procedure provided for must be free of charge or inexpensive. Certain countries have decided to create independent and impartial bodies to review access to information cases. For instance, France has established the Commission for Access to Administrative Documents.¹⁴² Most countries have also administrative appeal processes that are usually free of charge.¹⁴³

The convention provides that those who have standing to bring access to information complaints must either have sufficient interest or maintain that their rights have been impaired. For the purposes of the convention, NGOs are deemed to have sufficient interest and deemed to have rights capable of being impaired.¹⁴⁴

An interesting facet of the access to justice provisions is that they are not only available for procedural and substantive violations of the access to information rights¹⁴⁵ but also for any violation of national environmental law.¹⁴⁶ Access to justice should provide adequate and effective remedies – including injunctive relief – that must be equitable and timely. Moreover, judicial decisions must be in writing and must be publicly accessible.¹⁴⁷

The governing body of the Aarhus Convention is the Meeting of the Parties that takes place every two to three years.¹⁴⁸ In the meantime groups are to work on the different aspects of the convention.¹⁴⁹ The parties to the convention have established recently a compliance committee.¹⁵⁰ The

¹⁴¹ Art. 9(1), Aarhus Convention, *supra* note 87.

¹⁴² Guide, *supra* note 88, at 126.

¹⁴³ *Id.* at 127.

¹⁴⁴ Art. 9(2), Aarhus Convention, *supra* note 87.

¹⁴⁵ Art. 9(2)(b), *id.*

¹⁴⁶ Art. 9(3), *id.*

¹⁴⁷ Art. 9(4), *id.*

¹⁴⁸ Art. 10, *id.*

¹⁴⁹ Working groups established under the convention include: the working group on genetically modified organisms, the working group on pollutant release and transfer registers; the task force on electronic tools, the task force on access to justice; and the task force on financial arrangements. More detail on the working groups is available online <http://www.unece.org/env/pp/tfwg.htm>.

¹⁵⁰ See art. 15, Aarhus Convention, *supra* note 87. See also Decision I/7 Review of Compliance, Meeting of the Parties to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, First Meeting, Lucca,

compliance committee is to review cases of non-compliance through submissions of parties, referrals by the secretariat of the convention or communications from the public. The compliance committee cannot engage in enforcement but has to report to the Meeting of the Parties on its findings. The Meeting of the Parties may take measures against a state violator that range from assistance and cautions to the suspension of privileges accorded under the convention.¹⁵¹

Access to Information Directive

Because of the extensive requirements prescribed under the Aarhus Convention, the 1990 Directive on Access to Information¹⁵² adopted by the Community seemed quite weak. The Community, as a party to the Aarhus Convention, had to amend the directive to comply with the requirements of the convention.¹⁵³ Many of the provisions of this amended directive repeat the provisions of the convention or make them more explicit. For instance, the provision for dissemination of environmental information provides that information to be disseminated must include at least:

- international treaties and other agreements;
- policies, plans and programs relating to the environment and their progress reports;
- reports on the state of the environment;
- data derived from monitoring activities;
- and authorizations with a significant impact on the environment, environmental impact studies and risk assessments.¹⁵⁴

3.2. Eco-labeling

The first eco-labeling system established by the Community was not very successful for a number of reasons:

- a decisionmaking process that was quite slow;
- lack of transparency in consultation. Environmental groups complained that their views were not heard and industry complained that the DG Environment was too bureaucratic;

Italy, 21-23, Oct. 2002 (Oct. 31, 2002).

¹⁵¹ *Id.*

¹⁵² Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment, OJ L158/56, 23.06.1990.

¹⁵³ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to information and repealing Council Directive 90/313/EEC, OJ L 41/26, 14.02.2003.

¹⁵⁴ Art. 7, *id.*

- the relative lack of knowledge about the scheme. Many consumers were more attuned to their national eco-labeling schemes than to the Community eco-labeling scheme.¹⁵⁵

Because of the lack of success, the scheme was revised in 2000.¹⁵⁶ The purpose of the 2000 scheme is to single out products that are superior to other products because of their reduced environmental impact. This way the scheme attempts to ensure that consumers are provided with accurate and scientifically based information on products.¹⁵⁷ Products that are superior to other products, because of their low environmental impact, are to be given the logo of ‘the European Flower’.

In order to participate in a Community eco-label scheme the manufacturer of a product must prove that the product:¹⁵⁸

- represents a significant volume of sales and trade in the EC market;
- comprises a significant part of the sales destined for the final consumer;
- has a significant environmental impact;
- and provides incentives to other manufacturers, by means of consumer choice, to offer products that qualify for an eco-label.¹⁵⁹

Specific eco-label criteria must be established according to product groups that must take into account the following principles:

- the product's prospects of market penetration in the Community;
- the technical and economic feasibility of necessary adaptations;
- the potential for environmental improvement.¹⁶⁰

Applications for eco-labels can be submitted by manufacturers, importers and service providers as well as traders and retailers for products manufactured under their brand name.¹⁶¹ Applications must be addressed to the competent body of the member state where the product originates.¹⁶²

¹⁵⁵ Andrew Jordan et al., *European Governance and the Transfer of 'New' Environmental Policy Instruments in the European Union*, paper prepared for the 2001 European Community Studies Association Biannual Conference, in Madison, Wisconsin, May 30- June 2, 2001.

¹⁵⁶ Regulation (EC) No 1980/2000 of the European Parliament and of the Council of 17 July 2000 on a revised Community eco-label award scheme, OJ L 237/1, 21.09.2000.

¹⁵⁷ Art. 1(1), *id.*

¹⁵⁸ Certain products are excluded from receiving eco-labels: for instance, substances that are toxic, carcinogenic or dangerous, drinks, foodstuffs, pharmaceutical products, medical devices and products manufactured by processes that are likely to harm human health significantly. See art. 2(4) & (5), *id.*

¹⁵⁹ Art. 2(2), *id.*

¹⁶⁰ Art. 4(2), *id.*

¹⁶¹ Art. 7(1), *id.*

¹⁶² Art. 7(3), *id.* If a product originates outside the Community the application must be presented before the competent authority of one of the member states where the product will be placed in the market.

The regulation establishes the European Union Eco-labeling Board (EUEB)¹⁶³ the purpose of which is to draft eco-labeling criteria for different products. The Board is comprised of the competent authorities of states reflecting the important role states could play in the success of the eco-labeling scheme. An Eco-labeling Management Committee is established also to increase the transparency of the scheme. The Community has been quite active in the implementation of the scheme by issuing decisions on the eco-labeling criteria for soil improvers,¹⁶⁴ paints and varnishes,¹⁶⁵ textiles,¹⁶⁶ paper¹⁶⁷ and a number of other products. The success of the Community amended eco-label scheme would depend eventually on the willingness of governments to abandon or disfavor their national schemes to advance the Community eco-label scheme.

4. MARKET-BASED INSTRUMENTS

Market-based instruments that have been proposed have to do mostly with the climate change issue. Climate change involves the change in the earth's atmospheric temperature because of the emission of certain pollutants, especially carbon dioxide (CO₂).¹⁶⁸ It is claimed that such a change could cause significant environmental problems: such as increased desertification; the flooding of small islands; and other unforeseeable environmental disasters.¹⁶⁹

¹⁶³ Commission Decision of 10 November 2000 establishing the European Union Eco-labeling Board and its rules of procedure, OJ L 293/24, 22.11.2000.

¹⁶⁴ Commission Decision 2001/688/EC of 28 August 2001 establishing the ecological criteria for the award of the Community eco-label to soil improvers and growing media, OJ L 242/17, 12.09.2001.

¹⁶⁵ Commission Decision 2002/739/EC of 3 September 2002 establishing revised ecological criteria for the award of the Community eco-label to indoor paints and varnishes and amending Decision 1999/10/EC, OJ L 236/4, 04.09.2002.

¹⁶⁶ Commission Decision 2002/371/EC of 15 May 2002 establishing ecological criteria for the award of Community eco-label to textile products and amending Decision 1999/178/EC, OJ L 133/29, 18.05.2002.

¹⁶⁷ Commission Decision 2002/741/EC of 4 September 2002 establishing revised ecological criteria for the award of the Community eco-label to copying and graphic paper and amending Decision 1999/554/EC, OJ L 237/6, 05.09.2002.

¹⁶⁸ Over the past century the global mean temperature has increased by 0.6 °C. And over the past a hundred and fifty years, 1998 was the warmest year and 2002 the second warmest year. Overall the 1990s was the warmest decade since the middle of the 19th century. See European Environment Agency, *Europe's Environment: the third assessment – Summary 92 (2003)* [hereinafter *Third Assessment*].

¹⁶⁹ In more detail it is expected that:
the risk of floods in northern Europe and summer droughts in the Mediterranean region will increase;
coastal zones will face many pressures such as coastal erosion;
forest productivity may increase;
and infections and diseases may be on the rise. *Id.* at 95-97.

Climate change has been a controversial issue because not all scientists agree on the existence of the problem and its effects on earth's climate. Large emitters of carbon dioxide like the United States have contested the existence of the problem and have proposed to handle it by the creation of sinks (for instance, tree plantations that absorb carbon dioxide) rather than source abatement (cutting off emissions of industrial polluters and automobiles). At the other extreme, the Community has been quite aggressive in tackling the problem at the source of pollution.

The international community has addressed climate change with the Framework Climate Change Convention¹⁷⁰ and the Kyoto Protocol.¹⁷¹ The Kyoto protocol adopted in 1997 imposed on the Community the obligation to cut its greenhouse gas emission by eight percent between 2008 and 2012 in relation to the 1990 levels. The Kyoto Protocol tackles the emissions of six greenhouse gases: carbon dioxide (CO₂), methane (CH₃), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF₆).

The commitments made at the Kyoto Protocol were made more explicit during the Marrakech accords that provided for three flexible mechanisms to meet the Kyoto goals:

joint implementation (industrialized countries conduct joint projects to reduce greenhouse gas emissions); clean development mechanisms (industrialized countries invest in projects to reduce greenhouse gas emissions in developing countries); and emissions trading (industrialized countries can trade emissions with each other).

In 2002 the member states of the European Union decided on differentiated emission targets/limitations for each member state based on each state's economic development the so-called burden-sharing agreement. To follow this agreement some countries are allowed to increase their percentage of emissions relative to the base-year while other countries must drastically reduce their emissions. For instance Greece is allowed to increase its emissions by 25 percent while Germany must reduce its

¹⁷⁰ United Nations Framework Convention on Climate Change, May 9, 1992, *reprinted in* 31 I.L.M. 848 (1992), available online <http://unfccc.int>.

¹⁷¹ Kyoto Protocol to the Framework Convention on Climate Change, Dec. 11, 1997, *reprinted in* 37 I.L.M. 22 (1998). By January 2003 more than a hundred countries responsible for 44 percent of the 1990 emissions of industrialized countries ratified the protocol. The protocol will enter into force when it is ratified by at least fifty-five countries that together account for at least 55 percent of CO₂ emissions. This means that either the United States or the Russian Federation would have to ratify the protocol. See Third Assessment, *supra* note 168, at 101.

emissions by 21 percent.¹⁷² In June 2000, the European Union established a European Climate Change Programme (ECCP) in order to identify cost-effective measures for the reduction of greenhouse gas emissions: such measures include, *inter alia*, the promotion of renewable energy and an EU emissions trading scheme.¹⁷³

As a result of the measures taken up to this point, greenhouse emissions in the EU fell by 3.5 percent between 1990 and 2000. The reductions were higher in accession states but emissions have started to creep up as industrial activity peaks up.¹⁷⁴

4.1. Climate Change and Tradable Allowances

The concept of tradable allowances has been already applied in the Community context for the control of ozone-depleting substances although on a more limited scale than that envisaged for the reduction of greenhouse gases.¹⁷⁵

Emissions trading under the climate change regime would involve an arrangement according to which companies are allocated allowances for their greenhouse gas emissions by their governments. The arrangement would allow individual companies to emit more greenhouse gases if they could find another company that emits less and is willing to spare its allowances.¹⁷⁶ A Community-wide emissions trading scheme would aim for one single price for all allowances traded within the Community. Allocating the emission allowances would be the most difficult part of the scheme. First of all, a decision has to be made about which companies/sectors will participate in the scheme (for instance, large combustion plants seem to be the primary candidates) and about measures to be imposed on the non-trading companies with regard to their carbon dioxide emissions.

¹⁷² *Id.*

¹⁷³ *Id.* at 104.

¹⁷⁴ *Id.* at 91.

¹⁷⁵ The Montreal Protocol on Substances that Deplete the Ozone Layer and the EC rules allow member states to 'jointly fulfill' their obligations to reduce the consumption and production of ozone depleting substances. Article 1 (8) of the Montreal Protocol provides for 'industrial rationalization' that is the transfer 'of all or a portion of the calculated level of production' of one party to another. *See* Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, *reprinted in* 26 I.L.M. 1550 (1987).

¹⁷⁶ Green Paper on greenhouse gas emissions trading within the European Union, COM (2000) 87 final.

The Commission proposed a greenhouse emissions trading scheme in 2002.¹⁷⁷ According to this scheme, effective in January 1st, 2005, all installations carrying activities provided for in the scheme and emitting greenhouse gases must possess a permit for doing so.

Member states are to establish national plans that include the criteria provided in the proposal¹⁷⁸ that indicate the allowances they intend to allocate and the method of allocation. These national plans should cover the period between January 1st 2005 and December 31st 2007 and must be published. The allowances allocated for this initial period are to be free of charge. For the subsequent periods the Commission is to establish a harmonized system for allocating allowances.

The Commission is to adopt guidelines for monitoring and reporting emissions that would be used by plant operators. The Commission is to establish also a system of registries in the form of an electronic database for monitoring the allowances.

On a national basis, up to this point, the U.K. is the first country to establish an emissions trading scheme for the basket of the six Kyoto gases. Companies can voluntarily enter into legal obligations to cut their emissions of greenhouse gases. Denmark has established a pilot for the reduction of CO₂ emissions in the electricity sector.¹⁷⁹

4.2. Climate Change and Eco-taxes

The imposition of eco-taxes as a means to tackle environmental problems has been proposed in many contexts. The idea is that if industries, and eventually the consumer, are charged directly for polluting the environment, they would refrain from activities that have adverse environmental impacts.

The Commission proposed the imposition of a carbon dioxide tax on both CO₂ emissions and the energy content of fuels as early as in 1992.¹⁸⁰ It was estimated that the tax would increase the price of natural gas by fourteen percent and of petrol by six percent if the consumer were to bear the costs. The Persian Gulf oil producers, industry and industry-related DGs were

¹⁷⁷ Proposal for a Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC, COM (2001) 581, Official Journal C 75E, 26.03.02.

¹⁷⁸ Annex III, *id.*

¹⁷⁹ See Third Assessment, *supra* note 168, at 104.

¹⁸⁰ Communication from the Commission to the Council, A Community strategy to limit carbon dioxide emissions and to improve energy efficiency, SEC (91) 1744 final, 14.10 1991.

all opposed to the imposition of a tax.¹⁸¹ The EC countries in favor of the adoption of tax included: Germany, the Netherlands and the three Scandinavian states. Other countries like U.K. and Spain were opposed to the imposition of Community taxes. Spain based its objection on its overall low contributions to pollution. The U.K. was opposed, as a principle, to the EU assumption of taxing powers. In 1994 the Council of Ministers agreed to drop the imposition of a Community carbon tax and left upon states to design their own carbon taxes.¹⁸² On a national basis several countries, including Denmark, Finland, Germany, Italy, the Netherlands, Norway, Slovenia, Sweden and the U.K., have introduced taxes on energy use and CO₂ emissions.¹⁸³

5. CONCLUSION

Horizontal legislative instruments, if consistently implemented, could become quite powerful in ensuring that environmental considerations penetrate each and every level of policymaking and industrial thinking. Horizontal legislation, therefore, should assist in the desired incorporation of environmental considerations into other policies. At the same time, though, the discretion left to member states in implementing the legislation could backfire into nominal EMAS or poor EIAs. In other cases the inclusion of too many processes, for instance with regard to the BREFs, may overwhelm even over-achievers. The Access to Information Directive may become a powerful tool in the hands of environmental groups but at the same time it strengthens states' role as collectors and organizers of information. It remains to be seen how horizontal legislation would contribute to the success of environmental policy by integrating environmental concerns into the various sectors of the economy.

¹⁸¹ John McCormick, *Environmental Policy in the European Union* 282 (2001).

¹⁸² *Id.* at 283.

¹⁸³ See Third Assessment, *supra* note 168, at 103.

CHAPTER 4. REGULATING AIR POLLUTION

1. AIR POLLUTION IN EUROPE: THE FACTS

Air pollution has been the subject of concern for European Community regulators since the early 1970s when the first international instruments and Community instruments were adopted to regulate acid rain. Since then the number of regulations has increased. And regulations have intensified in their scope, objectives and procedures they prescribe.

In comparative terms, air pollution legislation has been more effective than water pollution legislation¹ but it has not been equally successful in tackling the reduction of all air pollutants. The limit values for nitrogen oxide (NO_x), for instance, have yet to be achieved in major European cities but they are overall decreasing.² Some of the highest concentrations are found in southern European cities. The main contributor of nitrogen oxide is motor vehicles, thus explaining the high levels of nitrogen oxide in urban surroundings with high road traffic and combustion plants.

The main contributor of sulfur (SO₂) is the burning of oil and coal. Different fuels contain different amounts of sulfur.³ Oil refineries and power stations account for the majority of sulfur emissions in the European Union. With the reduction of sulfur in fuels, sulfur pollution seems to be diminishing all over Europe.⁴

The reduction of suspended particulate matter (SPM) has been much less impressive. Particles can be of various kinds and the smaller they are the higher their potential to cause harm by penetrating deep into the lungs.⁵

¹ See Commission of European Communities, Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 10-11, SEC (2003) 804.

² European Environment Agency, Europe's Environment: the third assessment – Summary 35 (2003) [hereinafter Third Assessment].

³ For instance, crude oil contains three percent of sulfur while high sulfur coal contains ten percent of sulfur.

⁴ Third Assessment, *supra* note 2.

⁵ Particles are usually measured as PM₁₀ where PM stands for particulate matter and 10 for the maximum diameter of the particle in micrometers. Finer particles can be measured also such as PM_{2.5}. Recent evidence suggests that particles with smaller diameter of 2.5 micrometers cause even more damage to human health. Particles are produced during combustion and may consist of dust, pollen and small soot flakes. Particles are formed mainly in the air from sulphur dioxide and nitrogen oxides. Particle formation can occur away from the source presenting a transboundary problem responsible for ground-level ozone and eutrophication. See generally Communication from the Commission, The Clean Air for Europe (CAFE) Programme: Towards a Thematic Strategy for Air Quality 2-3, COM (2001) 245 final.

The elusive character of particles makes their regulation difficult since one must be able to identify them and map their movement. The limit values for particulate matter are exceeded often all through Europe. The European Environment Agency has declared that exposure to particulate matter is “the largest threat to human health” in many European cities and that member states are likely to face difficulties in complying with future standards.⁶ High concentrations of particulate contribute to elevated concentrations of ground-level ozone during the summer months.⁷ Ozone is an oxidant that causes irritations of the eye and irritations of the airways and can reduce lung capacity. Concentrations of ground level ozone exceed often target values by 30 percent in most EU cities – especially in southern and central European countries. Projections for 2010 show significant decreases, though, target values are unlikely to be met everywhere in Europe.⁸

Other substances that contribute to ozone formation include Volatile Organic Compounds (VOCs). VOCs involve pollutants such as benzene, ethene and various other nitrated polyaromatic hydrocarbons. Some of these pollutants are present in diesel motor vehicles and small-scale combustion such as wood and coal burning.

The main source of carbon dioxide (CO₂) is the burning of fossil fuels. Carbon dioxide exists naturally in the atmosphere. But its rapid increase due to industrialization is considered the main contributor to climate change.⁹ Carbon monoxide (CO) is produced mainly from the incomplete burning of fossil fuels and it can adversely affect human health.¹⁰ Heavy metals that contribute to air pollution include mercury, lead and cadmium. Heavy metals are discharged into the air and water by various industries. The phasing out of leaded petrol and other mandatory reductions of metals have abated some of these pollutants but not all of them.¹¹

⁶ Third Assessment, *supra* note 2, at 35.

⁷ See Report to the Commission by the European Environment Agency, Air Pollution by Ozone in the European Union: Overview of the 1999 Summer Session (prepared by Rob Sluyter & Annemarieke Camu, Oct. 1999).

⁸ Third Assessment, *supra* note 2, at 35.

⁹ For more details on climate change and measures the Community has taken to address the problem, see Chapter 3, Section 4.

¹⁰ For the regulation of carbon monoxide, see *infra* Section 2.2.3 (Second Daughter Directive).

¹¹ For the regulation of heavy metals, see *infra* Section 3.3.

2. POLICIES AND RULES FOR CLEAN AIR

Overall it could be said that the European Union was slower in responding to air pollution than to water pollution. The initial air quality directives were developed in the early 1970s but it took until the 1980s for the legislation to be fully developed. On the contrary, most of the water quality provisions were adopted in 1970s. The reason for the incremental development of the air legislation has to do with the 1973 energy crisis. After the crisis was over, demands for stringent legislation intensified.¹²

The air pollution legislation has been influenced by two factors. The leading states, especially Germany and Sweden, that pushed for the adoption of stringent laws to accommodate domestic legislative developments, and the Commission who saw air pollution as the transboundary problem that could help strengthen its regulatory role.¹³

The policies of regulation of air pollution have progressed in a way that not only has made possible the imposition of stricter standards but also has enabled gradually the development of a methodology that would ensure harmonized monitoring and implementation among member states. The Air Framework Directive¹⁴ adopted in 1996 is in some way the precursor of the Water Framework Directive that epitomizes the organizing penchant of Community environmental law.

Another element of the air pollution regulation is that it has been influenced by and has influenced, in turn, the international policies on air pollution. This interplay between the international regime and Community rules is more evident in the air legislation than in the water legislation since air pollution is more of an obvious transnational problem than water pollution.¹⁵ Moreover, United Nations Economic Commission of Europe (UN/ECE) – which is the forum for the development of the Convention on Long-range Transboundary Air Pollution (CLRTAP) – is comprised, *inter alia*, of EU member states and candidate countries. These countries are eager to develop synergies between the EU and the CLRTAP regime.¹⁶

¹² See John McCormick, *Environmental Policy in the European Union* 184 (2001) [hereinafter McCormick (environment)].

¹³ Kenneth Hanf, *Air Pollution Policy in the European Union*, in *Environmental Law and Policy in the European Union and the United States* 125, 126 (Randall Baker ed., 1997).

¹⁴ See *infra* Section 2.2.1.

¹⁵ Many waters fall under domestic jurisdiction and are not primarily matters of international concern.

¹⁶ For the analysis of the CLRTAP regime, see *infra* Section 3.

It has been claimed that the European Union has adopted a cyclical approach to air legislation. The Community first developed standards that regulated the sources of pollution (the 1970s) – that is motor vehicles and products – to be followed by air pollution standards concentrating on specific substances such as lead and sulphur (the early 1980s). Air pollution standards were to be followed by emission standards targeting the stationary sources of pollution basically large combustion plants (late 1980s). Finally emphasis shifted again to air pollution standards (the 1990s).¹⁷

This cyclical view of the legislative policy is correct with a caveat that despite the emphasis on the different methods of controlling pollution at different periods of time, the Community has followed also a parallel approach. The standards for motor vehicles and fuels, for instance, have been amended multiple times since the 1970s. The improvement of standards for motor vehicles did not stop even as the Commission was concentrating on air pollution standards or emission standards. Another characteristic of the legislative efforts is that they exhibit a deepening of the understanding of the problems of air pollution especially with regard to monitoring and compliance. The Community adopted air quality standards both in the 1980s and 1990s but the 1990s standards have intensified the number of procedures that member states must go through to ensure that the rules are actually applied.

Figure 4.1. provides a conceptual map of the EU air pollution legislation. At the opposing sides of a horizontal line are the goals of legislation – that is either the abatement of pollution at the source or the reduction of pollution in the medium. The management of the substances that cause pollution involves the process of pollution control. The substance/source approach is articulated in emission limit values while the medium/substance approach is effectuated by air quality standards. Overall the air pollution regulation, as it has evolved, involves an inter-play between medium and source with substance as an intervening factor. The final actualization of the legislation, however, manifests a more systematic approach where air quality standards become the framework standards that set the parameters for National Emission Ceilings, which then become the reference standards for the different sources of pollution (Figure 4.2. & Figure 4.3.).

The Community standards resemble conceptually the standards applied in the United States. The United States air quality system is based on

¹⁷ Hanf, *supra* note 13, at 126.

national ambient air quality standards (NAAQs) with the requirement to develop state implementation plans (SIPs) that would ensure the attainment of standards in each state.¹⁸ The Community similarly promulgated air quality standards in the 1980s and 1990s with a mandate for member states to implement the standards. The establishment of new source performance standards (NSPS) in the United States is similar in nature to the emission standards for new and new-new sources mandated by the Community in the large combustion plant directives. These are basically technology-forcing standards. Technology-forcing standards have been established in both continents to reduce the emissions of automobiles and the hazardous content of fuels and other products.

Figure 4.1. Conceptual Map of EC Air Legislation

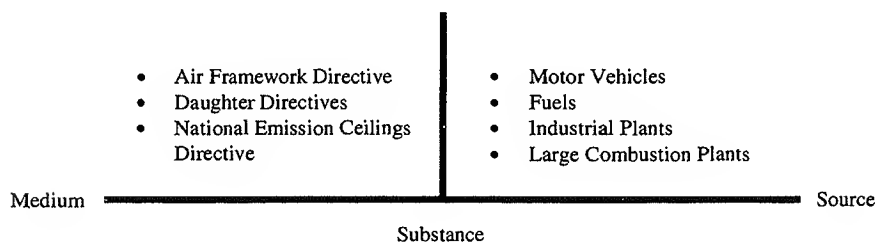
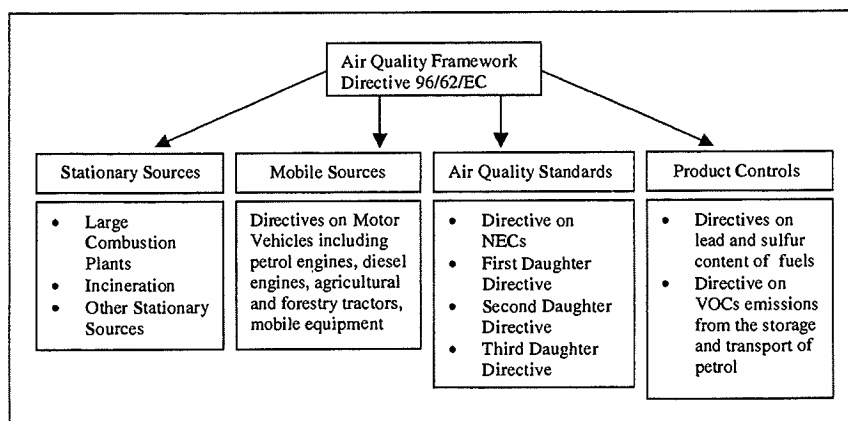


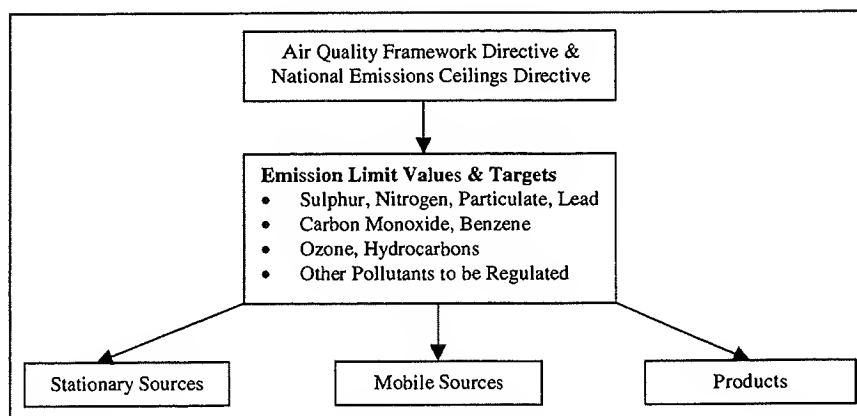
Figure 4.2. EC Air Legislation as it is Evolving



¹⁸ A. James Barnes, *Air Pollution Control in the United States*, in *Environmental Law and Policy in the European Union and the United States* 147, 151, *supra* note 13.

Conflicting Integration

Figure 4.3. Final Structure of EC Air Legislation



2.1. The Legislative Approach of 1970s and 1980s

2.1.1. The 1970s Approach and its Evolution: A Source Approach

The purpose of the 1970s legislation was to establish Community competence on the environment and more specifically on air pollution. The first directives tried to target the obvious sources of pollution such as motor vehicles, products and fuels in a rather piecemeal fashion. These directives have been amended multiple times to establish more stringent standards and, increasingly, procedures that states should apply to monitor compliance. The amendments of these directives through the 1980s and 1990s should be placed under the auspices of the Air Framework Directive and the National Emission Ceilings Directive.¹⁹

Regulating Motor Vehicles

The directives addressing pollution caused by motor vehicles regulate essentially the same pollutants addressed in the Framework Directive and the Daughter Directives.²⁰ The limit values in the motor vehicles directives, though, are expressed in terms of what is permissible for each motor vehicle – frequently articulated in terms of grams of pollutant emitted per kilometer traveled (g/km).

¹⁹ See *infra* Sections 2.2.1. & 2.2.2.

²⁰ See *infra* Sections 2.2.1. & 2.2.3.

The regulation of pollution caused by motor vehicles has been extensively debated and negotiated between states, like Germany, that feel compelled to push for stringent standards and cleaner vehicles and countries that wish to protect the competitiveness of their auto industries (for instance, the U.K.).²¹ The first piece of legislation on motor vehicle pollution²² – that set standards for emissions of carbon monoxide and unburned hydrocarbons – was adopted in response to laws passed in the late 1960s in Germany and France that posed a threat to the functioning of the internal market.²³

This initial legislation was followed by multiple amendments. A 1977 amendment set emission limits for nitrogen oxides.²⁴ Further emission limits were introduced for particulates.²⁵ In 1989 emission standards were set for small cars.²⁶ And a 1991 amendment extended the standards for small cars to all cars.²⁷ Further amendments were promulgated in 1993,²⁸ 1994²⁹ and 1998.³⁰

²¹ See Hanf, *supra* note 13, 136-37.

²² Council Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles, OJ L 32/32, 15.06.1974.

²³ McCormick (environment), *supra* note 12, at 186.

²⁴ Council Directive 77/102/EEC of 30 November 1976 adapting to technical progress Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles, OJ L 32/32, 03.02.1977.

²⁵ Council Directive 88/436/EEC of 16 June 1988 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from engines of motor vehicles, OJ L 214/1, 06.08.1988.

²⁶ Council Directive 89/458/EEC of 18 July 1989 amending with regard to European emission standards for cars below 1,4 litres, Directive 70/220/EEC on the approximation of the laws of Member States relating to measures to be taken against air pollution by emissions from motor vehicles, OJ L 226/1, 03.08.1989.

²⁷ Council Directive 91/441/EEC of 26 June 1991 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles, OJ L 242/1, 30.08.1991.

²⁸ Council Directive 93/59/EEC of 28 June 1993 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles, OJ L 186/21, 28.07.1993. This directive imposed the stringent standards that apply to passenger cars on vehicles that carry more than six occupants, light commercial vehicles and off-road vehicles.

²⁹ Directive 94/12/EC of the European Parliament and of the Council of 23 March 1994 relating to measures to be taken against air pollution by emissions from motor vehicles and amending Directive 70/220/EEC, OJ L 100/42, 19.04.1994. This directive introduced even more stringent limit values for all pollutants and a new method for checking on the conformity of production.

³⁰ Directive 98/69/EC of the European Parliament and of the Council of 13 October 1998 relating to measures to be taken against air pollution by emissions from motor vehicles and amending Council Directive 70/220/EEC, OJ L 350/1, 28.12.1998.

In addition to automobiles with petrol-run engines, motor vehicles with diesel engines, including specific vehicles,³¹ have been regulated since the early 1970s³² with multiple amendments (in 1988,³³ 1997,³⁴ 1999³⁵ and 2001).³⁶ Legislation has been adopted even to regulate non-road mobile machinery.³⁷

Overall the motor vehicle regulation is extremely technical and increasingly detailed as the European Community assumes the role of regulator of internal competition in motor vehicles. The regulation of pollution originating from motor vehicles is useful in this context as it helps to level the playing field among European automobile manufacturers. Motor vehicle regulation preserves the European Union's competitive advantage abroad as the United States and Japan are assuming a leading role in technological pollution control devices.

³¹ Council Directive 77/537/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in wheeled agricultural or forestry tractors, OJ L 220/38, 29.08.1977. See also Directive 2000/25/EC of the European Parliament and the Council of 22 May 2000 on action to be taken against the emission of gaseous and particulate pollutants by engines intended to power agricultural or forestry tractors and amending Council Directive 74/150/EEC, OJ L 173/1, 12.07.2000.

³² Council Directive 72/306/EEC of August 1972 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles, OJ L 190/1, 20.08.1972.

³³ Council Directive 88/77/EEC of 3 December 1987 on the approximation of laws of the Member States relating to the measures to be taken against the emission of gaseous pollutants from diesel engines for use in vehicles, OJ L 36/33, 09.02.1988.

³⁴ Commission Directive 97/20/EC of 18 April 1997 adapting to technical progress Council Directive 72/306/EEC on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles, OJ L 125/21, 16.05.1997.

³⁵ Directive 1999/96/EC of the European Parliament and of the Council of 13 December 1999 on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending Council Directive 88/77/EEC, OJ L 44/1, 16.02.2000.

³⁶ Commission Directive 2001/27/EC of 10 April 2001 adapting to technical progress Council Directive 88/77/EEC on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles, OJ L 107/10, 18.04.2001.

³⁷ Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery, OJ L 59/1, 27.02.1998.

The motor vehicle pollution regulation, as elaborated in multiple amendments, is an example of the federalization of the European Community environmental law. The detailed standards but also the assessment and monitoring procedures leave very little room for improvisation in implementation.

Regulating Products

Reducing pollutants contained in petrol and diesel fuels is another way to control air pollution. These reductions are expressed usually in terms of the amount of pollutant contained in the fuel (e.g. mg/kg, g/l) or in terms of a percentage value.

Lead – a quite hazardous substance especially for children – was one of the first substances to be regulated. As early as in 1972 Germany had limited the lead content of its petrol to 0.4 grams per liter. In response to Germany's pressure the Commission set up two committees to study lead emissions in motor vehicles. When Germany further commanded more reductions of lead in petrol (down to 0.14 g/l) starting in January 1976, the Commission responded with a proposal that was eventually adopted as Directive 78/611 requiring upper limits of lead in petrol between 0.15 and 0.4 g/l.³⁸

A new directive that further limited lead in petrol was adopted in 1985³⁹ propelled by a change in British policies and a campaign conducted by environmental groups. Germany was equally supportive of more controls due to the realization that unleaded petrol is a requirement for the use of catalytic converters in vehicles.⁴⁰ The 1985 directive set the limits of lead in petrol at 0.15 g/l and member states were required to reach this limit as soon as possible. The directive proposed also the introduction of unleaded petrol by October 1, 1989. Further reductions of lead in fuel were intensified with mandated prohibitions on the marketing of low-octane leaded petrol.⁴¹

The campaign against lead in fuels was successful in cutting lead emissions. Lead emissions from petrol between 1990 and 1996 fell by 50 percent in

³⁸ Council Directive 78/611/EEC of 28 June 1978 on the approximation of the laws of Member States concerning the lead content of petrol, OJ L 197/19, 28.07.1978.

³⁹ Council Directive 85/210/EEC of 20 March 1985 on the approximation of the laws of Member States concerning the lead content of petrol, OJ L 96/25, 03.04.1985.

⁴⁰ McCormick (environment), *supra* note 12, at 189.

⁴¹ Council Directive 87/416/EEC of 21 July 1987 amending Directive 85/210/EEC on the approximation of the laws of Member States concerning the lead content of petrol, OJ L 225/33, 13.08.1987.

England, 80 percent in the Netherlands and Germany, and 98 percent in Denmark, Finland, Norway and Sweden.⁴²

Sulphur is another polluting substance that must be controlled. In 1993 the Commission adopted a directive to control the sulphur content in liquid fuels.⁴³ The directive was amended further in 1999.⁴⁴ The directive mandated a maximum sulphur content in diesel: 0.2 percent as of 1994 and 0.05 percent as of October 1996.

In 1998 a more integrated approach to the regulation of pollution from fuels was introduced – an outcome of the first Auto-Oil Program.⁴⁵ The aim of this integrated approach is to regulate the overall quality of petrol and diesel fuels by regulating simultaneously different pollutants.⁴⁶ The 1998 legislation provides thus for increasing reductions of sulphur in diesel and petrol and for benzene in petrol and bans totally leaded petrol by 2000. Further reductions are mandated starting January 2005. The legislation was further amended in 2003.⁴⁷ The 2003 amendment mandates even more reductions in the sulphur content of petrol (10mg/kg) effective on a balanced geographical basis starting in 2005 and applicable all through the territory of member states starting in 2009.⁴⁸

The regulation of fuels makes obvious the graduation of EC regulation from a piecemeal approach to an integrated approach. The goal of this integrated approach is to improve the quality of products by addressing simultaneously a number of pollutants. The product quality directives become so-to-speak umbrella directives for the regulation of a number of pollutants. These “organizing” umbrella directives should facilitate the Community goal for a more consistent, easier to understand and interpret body of federal law.

⁴² McCormick (environment), *supra* note 12, at 189.

⁴³ Council Directive 93/12/EEC of 23 March 1993 relating to the sulphur content of certain liquid fuels, OJ L 74/81, 27.03.1993.

⁴⁴ Council Directive 1999/32/EC of 26 April 1999 relating to a reduction in the sulphur content of certain liquid fuels and amending Directive 93/12/EEC, OJ L 121/13, 11.05.1999.

⁴⁵ The Auto-Oil Programs (Auto-Oil Program I & Auto-Oil Program II) are programs undertaken voluntarily by automobile manufactures and fuel producers in collaboration with the Commission and have led to the promulgation of stricter and more encompassing standards. See Chapter 3, Section 2.3.

⁴⁶ Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC, OJ L 350/58, 28.12.1998.

⁴⁷ Directive 2003/17/EC of the European Parliament and of the Council of 3 March 2003 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels, OJ L 76/10, 22.03.2003.

⁴⁸ Art. 3(2), *id.*

2.1.2. The 1980s Approach: Emission Standards and Limit Values

The early 1980s: Emission Standards

To regulate air quality one has to determine the pollutant targeted; the level of desirable air quality (no more than x grams of pollutant per cubic meter of air); and the average time for calculating compliance. In addition, regulators may set how many times the standard should be exceeded before it is considered violated and the methods that must be used to determine the amount of pollution in the air.⁴⁹

Air pollution standards differ from the so-called emission standards established for industrial and combustion plants. While air pollution standards mandate the quantity of pollutant per *cubic meter of air*, emission standards have to do with the permissible quantity of a pollutant in the *waste gases* of an industrial plant which would be discharged in the air in a given period.

The first air quality standards adopted in the early 1980s set the limit values for sulphur dioxide and suspended particulates.⁵⁰ They were followed by standards on lead,⁵¹ which were followed by standards on nitrogen oxide.⁵² Adopting air quality standards was not an easy undertaking since many countries were opposed to such standards. The standards for lead, for instance, were debated since 1975 to be finally adopted in 1982 and the standards for sulphur were proposed in 1976 to be finally adopted in 1980.⁵³

In addition to establishing the limit values for pollutants, the air quality directives analyzed the reference methods that can be used to assess the amount of pollutants in the atmosphere. Member states were to draw implementation plans that would reduce pollutants according to the limit values mandated by the directives and were to submit their reports to the Commission. Thus, from these initial attempts to control air pollution, one can detect the nascent seeds of a methodology that uses assessment as a management tool of air quality.

⁴⁹ Barnes, *supra* note 18, at 151.

⁵⁰ Council Directive 80/779/EEC of 15 July 1980 on air quality limit values and guide values for sulphur dioxide and suspended particulates, OJ L 229/30, 30.08.1980.

⁵¹ Council Directive 82/884/EEC of 3 December 1982 on a limit value for lead in the air, OJ L 378/15, 31.12.1982.

⁵² Council Directive 85/203/EEC of 7 March 1985 on air quality standards for nitrogen oxide OJ L 87/1, 27.03.1985.

⁵³ Hanf, *supra* note 13, at 135.

The 1990s Daughter Directives amended the 1980s air pollution standards.⁵⁴ The 1990s Daughter Directives not only cover more pollutants but also include more stringent limit values and more detailed procedures on sampling and measurement to ensure even compliance among member states. The directives, as examined below, establish, short of administrative structures, a whole system for the control of air pollution. This system addresses often minute details of air pollution management where not much is left for states to interpret. Differentiation is allowed at the strategic level where states could balance the value of clean air versus the value of development but even strategic decisions are constrained by the specific Community standards that cannot be exceeded – unless states specifically ask for exceptions.

The mid-to-late 1980s: Limit Values for Stationary Sources

Because air quality standards – the implementation of which was left upon the discretion of member states – were not sufficient to curb air pollution, a conscious decision was made in the mid-1980s to attempt to address pollution at the source.

Addressing pollution at the source involved tackling emissions from industrial plants and mandating the adoption of the best available control technology to curb these emissions.⁵⁵ The first law to deal with industrial emissions was a framework directive.⁵⁶ Because of its nature as a framework directive, the legislation did not provide limit values for emissions. It required, however, that the operation of specific industrial plants be authorized in advance so as to prevent/reduce air pollution. The objective of the directive was to address SO₂ and NO_x emissions by requiring authorization from the relevant national authorities for the construction of new industrial plants (such as oil refineries and thermal power stations) or major alterations of existing plants. Before authorization was to be given the national authority had to be convinced that appropriate measures (technology standards) would be taken into account at the design stage to reduce air pollution. The concept of state of the art technology was to be adopted initially to determine the extent of the technology-forcing standard. The U.K. government, however, insisted on the adoption of a more pragmatic standard – that of “best available technology not entailing excessive costs” (BATNEEC).

⁵⁴ See *infra* Section 2.2.3.

⁵⁵ Hanf, *supra* note 13, at 138.

⁵⁶ Council Directive 84/360 /EEC of 28 June 1984 on the combating of air pollution from industrial plants, OJ 188/20, 16.07.1984.

A decisive piece of legislation to deal with the acidification problem involved a 1988 directive that dealt with the emissions of large combustion plants.⁵⁷ The directive was adopted after five years of torturous negotiations.⁵⁸ It set emission limits for SO₂, NO_x and dust for new plants. It required states also to draw plans for the staged reduction of emissions in existing plants by July 1992. The most interesting feature of the directive is that it established explicitly differentiated goals for member states. Wealthier and more industrialized states were to cut emissions (France, Belgium and Germany) while the least industrialized states (Greece, Ireland and Portugal) were permitted to increase emissions. The directive has been effective in reducing sulphur but the reduction of nitrogen oxide has not been that impressive.⁵⁹

In 2001 the 1988 Large Combustion Plants Directive was repealed and replaced by a new directive that makes standards for large combustion plants even more stringent and establishes specific methodologies for measurement.⁶⁰ The directive divides plants into three categories: the new-new plants that are licensed after November 27, 2002, the new plants licensed after July 1, 1987 but before November 27, 2002 and existing plants licensed by July 1, 1987.⁶¹ Each category of plants is to follow its own emission limit values with the exception of existing plants that member states may decide to include in a national plan. The total emissions allowed under a national plan are to be calculated as a “bubble” for each pollutant. The size of bubble for each pollutant is determined by the sum of emissions as if emission limit values that apply to new plants were to be applied to existing plants over the period between 1996 and 2000.⁶² The national plan approach is more flexible than the requirement that each and every existing national plant should meet the emission limit values. The national plan approach allows plants to fine-tune their emissions among themselves as long as the bubble value for each pollutant is met. The national plan approach remains optional and states may decide to subject plants to the emission limits that apply to their category.

⁵⁷ Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants, OJ L 336/1, 07.12.1988.

⁵⁸ McCormick (environment), *supra* note 12, at 228.

⁵⁹ *Id.* at 229.

⁶⁰ Directive 2001/80/EC of the European Parliament and of the Council of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants, OJ L 309/1, 27.11.2001.

⁶¹ See arts. 3&4, *id.*

⁶² Art. 4(6), *id.*

The directive provides for exceptions when, for instance, a combustion plant commits not to operate for more than certain hours.⁶³ Special derogations are provided also for certain types of plants and for certain types of plants operated in Spain.⁶⁴

Incineration is another significant source of air pollution and the Community has tried to devise approaches to control such pollution since the late 1980s.⁶⁵ The most recent directive was enacted in 2000 and replaced prior directives with the purpose of creating a unified framework for the incineration of waste.⁶⁶ The directive follows in the footsteps of the Air Framework Directive and Daughter Directives. The directive provides, for instance, that states, when implementing this directive, must take into account the limit values for sulphur dioxide, nitrogen dioxide, particulate matter and lead in the ambient air that have been set out in the first Daughter Directive.⁶⁷ The directive sets limit values⁶⁸ for even more pollutants including hydrogen chloride and hydrogen fluoride (a substance that detrimentally affects ozone in the stratosphere), chromium, cobalt, copper, manganese, nickel, arsenic and mercury.⁶⁹

The directive provides that all incineration plants must have permits and that without permits they would be considered illegal operations.⁷⁰ Incineration plants must list also the waste they treat by using the list set up by the European Waste Catalogue.⁷¹ Before accepting wastes operators of incineration plants must check the incoming paperwork to make sure that the waste transfer is legitimate. They must take representative samples also to ensure that this is the case.⁷²

⁶³ Art. 4(4), *id.*

⁶⁴ Art. 5, *id.*

⁶⁵ See Council Directive 89/369/EEC of 8 June 1989 on the prevention of air pollution from new municipal waste incineration plants, OJ L 163/32, 14.06.1989. See also Council Directive 89/429/EEC of 21 June 1989 on the reduction of air pollution from existing municipal waste incineration plants, OJ L 203/50, 15.07.1989.

⁶⁶ Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, OJ L 332/91, 28.12.2000 [hereinafter Incineration Directive]. This directive has replaced the above municipal incineration plants directives, *see id.* It has replaced also the directive on the incineration of hazardous waste, *see* Council Directive 94/67/EC of 16 December 1994 on the incineration of hazardous waste, OJ L 365/34, 31.12.1994.

⁶⁷ Preamble(17), Incineration Directive, *id.*

⁶⁸ Annex V, *id.*

⁶⁹ Specific limit values are provided also for the co-incineration of waste, *see* Annex II, *id.*

⁷⁰ Art. 4(1), *id.*

⁷¹ Art. 5(2), *id.*

⁷² Art. 5(4), *id.*

As the stationary sources legislation progresses the establishment of a structured legislative approach becomes more evident. For instance, the 2000 Incineration Directive is an encompassing framework directive and organizes in a systematic fashion the requirements for the performance of incineration plants all over the Community. Overall the stationary sources legislation is an indication of the continuing progression of the EC environmental legislation from unified goals to differentiated goals under a number of controlling procedures. The latest Combustion Plants Directive, for instance, allows member states to opt, based on their preference, for a national plan to control emissions or to succumb to the emission limit values provided for existing plants under the directive. The national plan allows for more flexibility since not each and every source has to meet the standards as long as the standards are met by the cooperation between sources with different emission targets.

2.2. The 1990s Approach: A Process Approach

The piecemeal approach to regulation prevalent in the 1970s and the 1980s created a large number of instruments with no apparent connection to each other. While the legislation certainly does not lack a *raison d'être*, to the untrained eye it is difficult to map the train of thought of the legislator. The purpose of the Air Framework Directive is to create a coherent and effective foundation for the control of air pollution. The directive has developed in a systematic way the processes that would lead to the control of a number of substances that contribute to pollution independent of the source.

The Air Framework Directive has been supplemented by a number of Daughter Directives that set limit values and procedures for monitoring each and every pollutant. The Air Framework Directive was further detailed at the member state level by the National Emissions Ceilings Directive. Together the Air Framework Directive, the National Emissions Ceilings Directive and the Daughter Directives constitute the general parameters for the adoption of more specific legislation on products, mobile or stationary sources (Figure 4.2.).

Thus one can detect, as the EU air legislation is evolving, the parallel development of different efforts to control air pollution without a systematic approach on how to go about controlling such pollution (Figure 4.2.). The final structure of the air pollution legislation involves a system of dealing with pollution – with air quality standards and national emission limits as the parameter values for standards for stationary sources, mobile sources and polluting products (Figure 4.3.).

2.2.1. The Air Framework Directive as a Methodological Directive

The purpose of the Air Quality Framework Directive⁷³ is four-fold:

- to establish the goals of air quality in the Union;⁷⁴
- to assess air quality on the basis of a common methodology;
- to produce information for the public on air quality;”
- to strive to maintain good air quality or to improve air quality when needed.

Thus, from the outset, the directive attempts to do what previous directives have not done or have done partially – that is to establish a *common methodology* for the assessment of air pollution. The explicit purpose to achieve a common methodology is an evolutionary development of the Community legislation – an outgrowth and solidification of the understated rationale of prior directives. Methodology is not anymore a side issue to help achieve the goals of air pollution abatement. Methodology is the centerpiece of legislation that helps smooth compliance among member states.

Methodology

The directive aims to regulate thirteen substances.⁷⁵ These substances are to be regulated through limit values, target values, margins of tolerance and alert thresholds. The directive does not prescribe the specific limit values, margins of tolerance and alert thresholds for the thirteen substances. It is the task of the Daughter Directives to do so.

Limit values are fixed levels of emissions that must be achieved based on scientific knowledge within a given period. Once limit values are achieved, they cannot be exceeded.⁷⁶ *Target values* are levels of emissions established for the purposes of avoiding more long-term harmful effects and they must be attained “where possible” over a given period.⁷⁷ The difference, thus,

⁷³ Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management OJ L 296/55, 21.11.1996.

⁷⁴ Art. 1, *id.*

⁷⁵ Annex I, *id.* The thirteen substances controlled under the directive are: sulphur dioxide, nitrogen dioxide, fine particulate matter, suspended particulate matter, ozone, benzene, carbon monoxide, poly-aromatic hydrocarbons, arsenic, nickel and mercury. The directive provides the guidelines for including additional dangerous substances. See Annex III, *id.* Such guidelines include: the possibility, severity and frequency of the effects of substances on human health and the environment, the high concentrations of substances into the atmosphere, metabolic alterations, persistence and accumulation.

⁷⁶ Art. 2(5), *id.*

⁷⁷ Art. 2(6), *id.*

between limit values and target values is that limit values are compulsory while target values are goals that must be reached whenever that is possible. *Margins of tolerance* are established for cases when the limit values cannot be met and describe levels above the limit values that must be tolerated until the limit values are reached within a specific timeframe.⁷⁸ *Alert thresholds* are concentrations of pollution that pose a risk to human health. Corrective action must be undertaken as soon as possible and the public must be informed when alert thresholds are exceeded.⁷⁹

The directive prescribes the factors that may be taken into account to set limit values and alert thresholds.⁸⁰ Such factors may include: the degree of exposure of sectors of the population and, in particular, of sensitive subgroups, climatic conditions, the sensitivity of flora and fauna, the historic heritage exposed to pollutants, the economic and technical feasibility and the long-range transmission of pollutants.

Organization

- Establishment of Competent Authorities

The directive provides that member states must establish the competent authorities to execute the tasks required under the directive.⁸¹ The directive, though, does not go as far as to prescribe specific management authorities as the Water Framework Directive has done.

- Territory Division

Member states must divide their territory into zones and agglomerations. Agglomeration is defined as a zone with more than 250,000 inhabitants or with less than 250,000 inhabitants when the population density is such that the assessment of air pollution is well justified.⁸²

- Air Quality Assessment

Member states must assess air quality in all agglomerations within their territory. This assessment must be based on specific measurements supplemented by modeling in areas where the limit values are exceeded. Otherwise modeling or objective estimation techniques may be used.⁸³

⁷⁸ Art. 2(8), *id.*

⁷⁹ Art. 2(7), *id.*

⁸⁰ Annex II, *id.*

⁸¹ Art. 3, *id.*

⁸² Art. 2(9), *id.*

⁸³ Art. 6, *id.*

- Classification of Agglomerations and Action Plans

The first category of agglomerations includes zones where one or more pollutants *exceed the limit value plus the margin of tolerance*. For this category member states must prepare plans and programs to reach the limit value within the specific timeframe set out in Daughter Directives.⁸⁴ The programs must be made available to the public and should include the *locus* of pollution as well as an assessment encompassing the origin of pollution.⁸⁵

The second category includes zones where pollutants are *between the limit value and the limit value plus a margin of tolerance*.⁸⁶ In this case member states must take action to achieve the limit values prescribed by the Daughter Directives within the deadlines prescribed by the Daughter Directives.

The third category includes zones where pollutants are *below the limit values*. In this case member states must ensure that they maintain, at least, the best air quality compatible with the goals of sustainable development⁸⁷ – a nebulous requirement that certainly does not mandate the *sine qua non* preservation of good air quality.

States must take measures to inform the public when *alert thresholds have been exceeded*.⁸⁸

Monitoring

Monitoring is executed at the state level and is reported to the Commission. States are required to report to the Commission:

- the list of their competent authorities;
- the zones where pollutants exceed the limit values;
- the programs put in place when limit values are exceeded;
- and the data included in their quality assessment programs.⁸⁹

⁸⁴ Art. 8(1)&(3), *id.*

⁸⁵ See Annex IV, *id.*

⁸⁶ Art. 8(2), *id.*

⁸⁷ Art. 9, *id.*

⁸⁸ Art. 10, *id.*

⁸⁹ Art. 11, *id.*

Right to Information

An innovative feature of the directive is that it provides for the right to information when alert thresholds are exceeded.⁹⁰ Because of the potential public outcry that may follow such a right to information, national authorities are encouraged to ensure that, at least, alert thresholds are not exceeded. The Daughter Directives, analyzed below, have expanded the right to information further to include routine check-ups of air pollution no matter whether the alert thresholds have been exceeded.

Information disclosed when alert thresholds are exceeded includes: the localization of excess pollution, the type of zone (rural or urban), the population exposed, the responsible authorities, the assessment of pollution, the origin of pollution, details on measures that have been taken and measures to be taken.⁹¹

Overall Appraisal

The directive was welcomed by environmental groups because it aims to protect not only human health but also the environment, because it establishes a methodology for the measurement of pollution that is to be refined in the Daughter Directives and because of its innovative provisions regarding access to information. It was felt, however, that the directive could be more stringent.

The goal of non-deterioration of good air quality is diluted in the directive since states must try “to preserve the best air quality, compatible with sustainable development.”⁹² Adding the term “sustainable development” to the goal of non-deterioration of air quality softens that goal. Southern countries – who argued that the prevention of deterioration of good air quality would be an unfair restriction of industrial activity in areas with good air quality⁹³ – fought to ensure that the non-deterioration goal does not hamper their development. Other complaints against the directive include the definition of agglomeration that some felt should be broader and should include localities with less than 250,000 inhabitants.

The directive provides a refreshing start for the regulation of air pollution that has been plagued with disparate directives hard to fit into an overall scheme. The success of the air pollution regulation in the European Union, as it unfolds into the future, would have as much to do with the

⁹⁰ Art. 10, *id.*

⁹¹ Annex IV, *id.*

⁹² Art. 9, *id.*

⁹³ McCormick (environment), *supra* note 12, at 190-91.

establishment of stringent objectives as with the establishment of processes that aid in the achievement of objectives. The latitude provided by the directive is therefore welcomed since it is controlled by a number of procedures that reduce states' discretion in matters of implementation and compliance.

2.2.2. Differentiation and the NECs Directive

The development of the National Emissions Ceilings (NECs) Directive has been influenced by the progression of the CLRTAP regime.⁹⁴ In 1999 the Commission proposed the NECs Directive that set national emission ceilings for the pollutants regulated under the CLRTAP regime and, for the first time, for ammonia. Simultaneously with the adoption of the NECs Directive, European countries, within the CLRTAP framework, adopted a multi-pollutant protocol (called Gothenburg Protocol)⁹⁵ that presents the first international effort for integrated air pollution management.

The NECs Directive was adopted in 2001⁹⁶ with the objective to establish national emission ceilings for sulphur dioxide (SO₂), nitrogen oxides (NO_x), Volatile Organic Compounds (VOCs) and ammonia (NH₃) to be achieved by states and the Community as a whole by the year 2010.⁹⁷ The purpose of these emission ceilings is to reduce acidification by 50 percent compared to the 1990 situation and to reduce substantially ground-level ozone exposure compared to the 1990 levels of exposure.⁹⁸ The directive introduces the concepts of critical loads and critical levels that – while present in international instruments – have been absent in Community legislation.⁹⁹ The introduction of the critical loads concept signals a transition from uniform emission targets to a more resilient approach that attempts to classify environments according to their sensitivity to pollutants. Overall the NECs Directive is an exemplification of the controlled differentiation approach as it allows states to regulate their environments based on national emission ceilings that signify their idiosyncrasies and their level of development. Differentiation is allowed, though, under a

⁹⁴ See *infra* Section 3.

⁹⁵ See *infra* Section 3.4.

⁹⁶ Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants OJ L 309/22, 27.11.2001.

⁹⁷ The national emission ceilings for member states are included in Annex I. The ceilings for the Community as a whole are in Annex II. See *id.*

⁹⁸ Art. 5, *id.*

⁹⁹ According to article 3(c) “critical load” means a quantitative estimate of exposure to pollutants below which there are no significant adverse impacts to the environment. According to article 3(d) “critical level” means a concentration of pollutants in the atmosphere above which direct effects to humans and the environment may occur. See *id.*

number of procedures that help ensure that the differentiated results are met.

To achieve the goals prescribed in the directive states must design programs that would assist in the progressive reduction of national emissions.¹⁰⁰ These programs must include information on the policies and measures to be undertaken as well as “the quantified estimates of the effect of these policies” on pollutants.¹⁰¹ The national programs must be revised by 2006 and must be made available to the public.¹⁰²

States must establish also and annually revise their national emission inventories and their projections for 2010 and must provide such information to the Commission.¹⁰³ To establish emission inventories and projections, states must take into account the procedures prescribed in the CLRTAP regime¹⁰⁴ demonstrating thus the close interaction between the CLRTAP regime and the Community policy.

The Commission must report to the Parliament and the Council on the progress of implementing the directive. Such reports must include an assessment of the marginal costs and benefits and the socioeconomic impacts of implementing national emission ceilings.¹⁰⁵ The reports may be accompanied by proposals for additional measures to be taken to meet the interim objectives of the directive by 2010 and the long-term objectives of the directive by 2020.¹⁰⁶

2.2.3. The Daughter Directives

The Air Quality Framework Directive was followed by a series of Daughter Directives that prescribe standards for specific pollutants.

The First Daughter Directive

Air quality standards for lead, nitrogen dioxide and sulphur dioxide have been prescribed since the early 1980s.¹⁰⁷ This is the first specific pollutant directive, though, that, in addition to prescribing more stringent standards than the previous directives, takes pains to prescribe detailed procedures that would ensure the attainment of those standards.

¹⁰⁰ Art. 6, *id.*

¹⁰¹ Art. 6(2), *id.*

¹⁰² Art. 6(3) & (4), *id.*

¹⁰³ Art. 7, *id.*

¹⁰⁴ Annex III, *id.*

¹⁰⁵ Art. 9(1), *id.*

¹⁰⁶ Art. 10(5), *id.*

¹⁰⁷ See *supra* Section 2.1.2.

The first Daughter Directive prescribes limit values and alert thresholds for sulphur dioxide, nitrogen dioxide, particulate matter and lead.¹⁰⁸ The directive prescribes limit values for these pollutants at levels that they will not cause harm to human health and the environment.¹⁰⁹ The standards provided by the directive are more stringent or, at least, as stringent as the standards provided by the World Health Organization.¹¹⁰

The directive provides in detail where sampling points must be located in order to ensure accurate measurement of pollutants. Macroscale siting considerations provide the general guidelines for the location of sampling points and microscale siting provides some of the minute details for the location of sampling points.¹¹¹ Further provisions are made for the number of sampling points for both diffuse and point sources.¹¹² As it should have been expected, the higher the population density and the higher the concentration of pollutants,¹¹³ the larger the number of sampling points needed. The directive recommends the adoption of the ISO¹¹⁴ guidelines for assessing the accuracy in the measurement of pollutants.¹¹⁵ The directive specifies also the reference methods that can be used for the assessment of concentrations of pollutants.¹¹⁶

¹⁰⁸ Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air, OJ L 163/41, 29.06.1999 [hereinafter First Daughter Directive].

¹⁰⁹ Annex I provides the standards for sulphur dioxide. Annex II prescribes the standards for nitrogen dioxide and oxides of nitrogen. Annex III prescribes the limit values and alert thresholds for particulate matter (PM10). Annex IV prescribes the limit values and alert thresholds for lead. *See id.*

¹¹⁰ World Health Organization Regional Office for Europe, Air Quality Guidelines for Europe (2000).

¹¹¹ For instance it is provided that a sampling point should be representative of the air quality in a surrounding area of no less than two hundred square meters at traffic-oriented sites and of several square kilometers at urban-background sites. It is provided also that the inlet sampling point should be between 1.5m and 4m above the ground and that it should be unrestricted and without obstructions. *See* Annex VI, First Daughter Directive, *supra* note 108.

¹¹² Annex VII, *id.*

¹¹³ The number of sampling points is higher when concentrations exceed the upper assessment threshold; lower when concentrations of pollutants are between the upper and the lower thresholds; and even lower when concentrations are below the lower threshold. The upper and lower assessment thresholds are defined in detail in Annex V, *id.*

¹¹⁴ The ISO (International Organization for Standardization) is a non-governmental organization comprised of national standardization bodies. The purpose of ISO is to propose global standards that industries could adopt.

¹¹⁵ Annex VIII, First Daughter Directive, *supra* note 108.

¹¹⁶ Annex IX, *id.*

The right to information is paramount in this directive. In addition to informing the public when concentrations reach the alert thresholds¹¹⁷ the directive provides that member states must “routinely make available to the public” information on concentrations of pollutants in the ambient area. Such information must be made also available to environmental groups, consumer organizations, organizations representing the interests of sensitive populations and relevant health care bodies.¹¹⁸

The Second Daughter Directive

The second Daughter Directive establishes limit values and alert thresholds for benzene and carbon monoxide.¹¹⁹ The second Daughter Directive is very similar in structure to the first Daughter Directive. The limit values and alert thresholds for carbon monoxide and benzene are provided in the Annexes.¹²⁰ Specific criteria are provided for the location and number of sampling points.¹²¹ Like the first Daughter Directive, this directive provides also for the right to information.¹²²

The second Daughter Directive, unlike the first Daughter Directive, though, allows states to ask for an “one-time limited extension.” States can ask for a one-time extension when the values of benzene are difficult to achieve, either because of site-specific dispersion characteristics or because of climatic conditions, and if the application of pollution abatement measures could create severe socio-economic problems. Under these circumstances the Commission can grant an one time-extension for a limited period of five years when the member state:

- provides the necessary justification for requesting the extension;
- designates the zones concerned;
- demonstrates that all reasonable measures have been taken so that pollution stays at the lowest level possible;
- outlines the measures that it needs to take to meet the limit values set by the directive.

Even in these limited circumstances, the limit value for benzene should not exceed 10 µg/m³.¹²³

¹¹⁷ Art. 8(3), *id.*

¹¹⁸ Art. 8(1), *id.*

¹¹⁹ Directive 2000/69/EC of the European Parliament and of the Council of 16 November 2000 relating to limit values for benzene and carbon monoxide in ambient air, OJ L 313/21, 13.12.2000.

¹²⁰ Annex 1 and Annex II, *id.*

¹²¹ The criteria for the location of sampling points are provided in Annex IV. Annex V provides the criteria for the number of sampling points. *Id.*

¹²² Art. 7, *id.*

¹²³ Art. 6, *id.*

Thus the prescription of standards in the second Daughter Directive allows for differentiation under strict conditions that define the level of differentiation. The directive is another example of controlled differentiation that characterizes the EC environmental legislation.

The Third Daughter Directive

The third Daughter Directive¹²⁴ sets target values relating to ozone in the ambient air and the substances that contribute to ozone pollution mostly VOCs.¹²⁵ It is important to note that this directive imposes target values and not limit values. Target values are not mandatory and member states must meet them when it is feasible.¹²⁶ The directive provides also for “long-term” objectives that are defined as ozone concentrations below which the damage to health and the environment is unlikely.¹²⁷

Member states are to define a list of zones or agglomerations where the values of ozone exceed the target values.¹²⁸ For these zones they must prepare plans or programs, with the aim to achieve the target values by 2010, and make these programs available to the public.¹²⁹ The public must be supplied also with detailed information when the alert thresholds are exceeded.¹³⁰

With regard to long-term objectives states must establish programs that are consistent with the programs that aim to achieve the target values.¹³¹ The directive provides that long-term objectives must be revised constantly to ensure that the National Emission Ceilings are met.¹³²

In addition to long-term plans to tackle ozone pollution, states are required to take short-term measures to deal with particular local circumstances when there is a risk that alert thresholds would be exceeded. Short-term plans should be adopted, though, only if there is a significant

¹²⁴ Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air, OJ L 67/14, 09.03.2002 [hereinafter Third Daughter Directive]. The third Daughter Directive repeals the 1992 Directive on ozone, *see* Council Directive 92/72/EEC of 21 September 1992 on air pollution by ozone, OJ L 297/1, 13.10.1992.

¹²⁵ Annex VI, Third Daughter Directive, *id.*

¹²⁶ Art. 2(9), *id.*

¹²⁷ Art. 2(10), *id.*

¹²⁸ Target values are included in Annex I of the directive, *id.*

¹²⁹ Art. 3, *id.*

¹³⁰ Annex II, *id.*

¹³¹ Annex I, Section III, *id.*

¹³² Art. 4, *id.*

potential of reducing the severity or duration of exceeding the alert threshold.¹³³ States must cooperate actively in cases of transboundary pollution and in accordance with the NECs by drawing joint plans and programs.¹³⁴ States must provide the Commission with reports including all instances of ozone pollution within their territory and efforts they have undertaken to deal with it.¹³⁵ The Commission is to review the effectiveness of the directive by 2004.¹³⁶

3. INTERNATIONAL INSTRUMENTS: THE CLRTAP REGIME

The first attempts to deal with air pollution were rudimentary. Tall smokestacks were used in the 1950s to disperse pollution in the winds. This wide-held practice transformed a localized problem into an international issue. One of the consequences was the transfer of pollution from Britain and Germany to downwind states such as Sweden. Downwind states, which started to experience significant problems including acidification of their waters, pushed for the adoption of a Convention on Long-range Transboundary Air Pollution (CLRTAP).¹³⁷

The Convention on Long-range Transboundary Air Pollution¹³⁸ is one of the first international instruments for the protection of the environment. The convention was signed under the auspices of the UN/ECE in 1979 and entered into force in 1983. Because of the objections of Germany and Britain, the convention did not include binding provisions but just imposed a general obligation on states to reduce long-range transboundary air pollution.¹³⁹ A number of protocols that offer concrete standards for the abatement of pollution supplement the convention.

The convention is based on a number of principles including the preventive principle¹⁴⁰ and calls for the cooperation between states that are mostly affected by pollution and states from which pollutants originate.¹⁴¹ The air quality management approach endorsed in the

¹³³ Art. 7, *id.*

¹³⁴ Art. 8, *id.*

¹³⁵ Art. 10, *id.*

¹³⁶ Art. 11, *id.*

¹³⁷ Convention on Long-range Transboundary Air Pollution, Nov. 13, 1979, *reprinted in* 18 I.L.M. 1442 (1979) available online http://www.unece.org/env/lrtap/lrtap_h1.htm.

¹³⁸ *Id.*

¹³⁹ McCormick (environment), *supra* note 12, at 213.

¹⁴⁰ Art. 2, Convention on Long-range Transboundary Air Pollution, *supra* note 137.

¹⁴¹ Art. 5, *id.* Article 1(b) defines "long-range transboundary air pollution" as pollution whose physical origin occurs within a national jurisdiction. This pollution, though, has adverse effects on areas under another state's jurisdiction at such a distance that it is usually not

convention is based on recognition that a total elimination of air pollution may not be feasible and that “air quality management” should be given priority.¹⁴² The parties to the convention undertake to develop the best policies and strategies including air quality management systems by applying the best available technology that is also economically feasible and by using low and non-waste technology.

The convention provides for tasks that states must undertake including research on new technologies; new monitoring techniques; models for understanding the transmission of pollutants and the effects of pollutants; economic, social and environmental assessment of alternative measures; and training.¹⁴³

The convention is administered by an Executive Body and a Secretariat. The Executive Body is comprised of representatives of all state parties and its purpose is to review and improve the implementation of the convention.¹⁴⁴ The Secretariat’s function – fulfilled by the Executive Secretary of the Economic Commission for Europe – is to assist the Executive Body in its duties.¹⁴⁵

Today the convention is administered by a more complex administrative structure. Many specialized working groups have been established that are assisted by task forces. The working group on effects, for instance, has established a number of task forces: an integrated monitoring task force, a modeling and mapping task force and vegetation, waters and health task forces. The working group on strategies and review is comprised of a POPs (Persistent Organic Pollutants) expert group, an expert group on ammonia abatement and a network of experts on the benefits of economic instruments.¹⁴⁶

The monitoring of the convention is undertaken by the “Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe” (EMEP).¹⁴⁷ The EMEP is an instrument

possible to distinguish between pollution from domestic sources and foreign sources. *See id.*

¹⁴² Art. 6, *id.*

¹⁴³ Art. 7, *id.*

¹⁴⁴ Art. 10, *id.*

¹⁴⁵ Art. 11, *id.*

¹⁴⁶ The detailed administrative structure of the convention is available online http://www.unece.org/env/lrtap/conv/lrtap_o.htm.

¹⁴⁷ Protocol on Long-Term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe, Sept. 28, 1984, *reprinted in* 24 I.L.M. 484 (1985) available online http://www.unece.org/env/lrtap/emep_h1.htm.

for the review and assessment of air pollution in Europe. At this point the EMEP collects data on all pollutants regulated under the convention, measures air quality and develops models on the pattern of pollution dispersion. The EMEP-related data are collected in a hundred monitoring stations in twenty-four countries across Europe. Monitoring data till today demonstrate that, despite the diversity of the parties,¹⁴⁸ the CLRTAP regime commands high levels of compliance.¹⁴⁹

3.1. The Sulfur Protocols

The first protocol was adopted in 1985 and dealt with the reduction of sulphur emissions since sulphur pollution was the primary reason for the adoption of the convention.¹⁵⁰ The protocol calls for a 30 percent reduction in sulphur emissions by 1993 in all state parties uniformly.¹⁵¹ The protocol has been successful. Sulphur emissions in 1993 were reduced by 50 percent taking into account all state parties as a group. State parties have achieved their targets also individually. Eleven out of the twenty-one parties have exceeded actually their targets by achieving reductions close to 60 percent.¹⁵²

The 1994 Sulphur Protocol called for further reductions of sulphur emissions.¹⁵³ The protocol – that was adopted after the 1992 Rio Conference¹⁵⁴ – includes many of the relatively new concepts of international environmental law such as the precautionary approach.¹⁵⁵ The protocol introduced also the critical level and critical loads concepts encountered

¹⁴⁸ Parties to the regime that are members of the European Community are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Norway, Portugal, Spain and U.K.

Parties to the regime that are candidate countries include: the Czech Republic, Hungary, Lithuania, Poland, Slovakia, Slovenia, Romania, Bulgaria and Latvia.

Parties to the regime that neither EC countries nor candidate countries include: Armenia, Belarus, Croatia, Canada, Ukraine, the Republic of Moldova, the Russian Federation, Switzerland and the United States of America.

¹⁴⁹ See Convention on Long-range Transboundary Air Pollution: Implementation available on line <http://www.unece.org/env/lrtap/conv/conclusi.htm> [hereinafter Implementation].

¹⁵⁰ Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 percent, July 8, 1985, *reprinted in* 27 I.L.M. 707 (1988) available on line http://www.unece.org/env/lrtap/sulf_h1.htm.

¹⁵¹ Art. 6, *id.*

¹⁵² Implementation, *supra* note 149.

¹⁵³ Protocol on Further Reduction of Sulphur Emissions, June 14, 1994, *reprinted in* 33 I.L.M.1540 (1994), available online http://www.unece.org/env/lrtap/sulf_h1.htm.

¹⁵⁴ The 1992 Rio Conference contributed to the reconfiguration of many concepts of international environmental law. See, e.g., Rio Declaration on Environment and Development, June 14, 1992, *reprinted in* 31 I.L.M. 874 (1992).

¹⁵⁵ See Preamble, Protocol on Further Reduction of Sulphur Emissions, *supra* note 153.

later in the NECs Directive. The protocol provides for the specific critical loads of sulphur that must not be exceeded.¹⁵⁶

A first step to the achievement of the critical loads objective involves the attainment of the national emission ceilings within specific deadlines.¹⁵⁷ The introduction of national emission ceilings that must be achieved within specific deadlines (2000, 2005, 2010) was the evolutionary jump that broke the long-established tradition of uniform emission standards in Europe. Contrary to the 1985 protocol that mandated a reduction of pollution by 30 percent all across state parties, the 1994 protocol specifies the levels of reduction per state. The advantage of such an approach is that it takes into account the level of development of different states. For instance the percentage reduction required for Greece between 1990 and 2000 is zero. Greece is even allowed more emissions for 2005 and 2010 given its current emissions and its current state of development.¹⁵⁸ By such an individualized approach to air pollution the protocol put into effect national emission ceilings for sulphur, something that would be mimicked by later protocols and eventually by the Community's differentiated approach to air pollution.

In addition to the critical loads concept and national ceilings, the protocol provides the minimum limit values for sulphur emissions that must be achieved by individual sources.¹⁵⁹ These limit values are immediately applicable for new stationary sources¹⁶⁰ and, by 2004 for major existing stationary sources with a thermal input of above 500MWth.¹⁶¹

The protocol encourages parties to adopt the most effective measures for the reduction of sulphur emissions including measures to increase energy efficiency and the use of renewable energy.¹⁶² It provides also that state parties should apply the best available control technologies not entailing excessive costs.¹⁶³ A multi-page Annex includes a list of the major sulphur producers and the means they could take to reduce their emissions.¹⁶⁴

¹⁵⁶ Art. 2(1) & Annex I, *id.*

¹⁵⁷ Art. 2(2) & Annex II, *id.*

¹⁵⁸ Annex II, *id.*

¹⁵⁹ Art. 2(5), *id.*

¹⁶⁰ Art. 2(5)(a), *id.*

¹⁶¹ Art. 2(5)(b), *id.*

¹⁶² Art. 2(4), *id.*

¹⁶³ *Id.*

¹⁶⁴ Major sources of sulphur emissions are: public power, cogeneration, district heating plants, commercial boilers, domestic heaters, industrial combustion plants, pulp production plants, metallurgical operations, some non-combustion processes, extraction, processing and distribution of non-fossil fuels.

To ensure compliance the protocol establishes, for the first time within the CLRTAP regime, an Implementation Committee. The purpose of the Implementation Committee is to review the compliance of states and provide solutions in cases of non-compliance.¹⁶⁵ Compliance under the protocol, with regard to achieving the 2000 deadline, was high since fifteen out of twenty-one state parties seem to be in compliance with the emissions ceilings mandated by the protocol. Another four states are on their way to full compliance. With regard to limit values, eleven countries have indicated compliance while the rest of the countries are either non-compliant or have not provided data on their compliance.¹⁶⁶

3.2. The Nitrogen Oxide Protocol

The purpose of the nitrogen oxide protocol¹⁶⁷ is to stabilize the nitrogen oxide emissions at 1987 levels by 1994.¹⁶⁸ To pursue this goal state parties are to establish national emission ceilings for major sources of nitrogen oxides¹⁶⁹ and initiate negotiations on the steps to be undertaken to further cut the emissions based on the critical loads concept.¹⁷⁰

The protocol encourages states to initiate and prioritize research that would help establish the critical loads for nitrogen oxide emissions and thus mandate the appropriate emission reductions for nitrogen oxides.¹⁷¹ The protocol contains a technical Annex inclusive of a number of recommendations on how to best reduce the emissions of nitrogen oxides from stationary sources and mobile sources.

Options for the reduction of sulphur emissions include: energy saving, fuel switching, fuel cleaning, advanced combustion technologies, process and combustion modifications and flue gas desulphurization (fgd) processes.

According to this Annex standards must be set per emission source depending on plant size, operating mode, combustion technology and fuel type and depending on whether the plant is new or old. An alternative approach is to set a target for the reduction of emissions from a group of sources which must take action together to reduce emissions – the bubble concept applied also in the Large Combustion Plants Directive. *See* Annex IV, *id.*

¹⁶⁵ Art. 7, *id.*

¹⁶⁶ Implementation, *supra* note 149.

¹⁶⁷ Protocol Concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, Oct. 31, 1988, *reprinted in* 28 I.L.M. 212 (1989) available online http://www.unece.org/env/lrtap/nitr_h1.htm.

¹⁶⁸ Art. 2(1), *id.*

¹⁶⁹ Art. 2(2)(a), *id.*

¹⁷⁰ Art. 2(3), *id.*

¹⁷¹ Art. 6, *id.*

States' reports demonstrate that seventeen out of twenty-six parties have complied with the 1994 deadline to stabilize emissions at 1987 levels. Some countries – Bulgaria, the Czech Republic, Ukraine and Germany – have gone even further by reducing their emissions by 40 percent. Other countries, though, despite their level of development and participation in the EU, have increased their emissions. For instance, France has increased its emissions by 103 percent between 1987 and 1996. It remains to be seen whether countries with economies in transition would keep their NO_x levels as low as they are today since these lower emissions have to do more with the economic slow down in these countries rather than the adoption of techniques of pollution abatement.¹⁷²

3.3. The VOCs, Heavy Metals and POPs Protocols

The *Volatile Organic Compounds (VOCs) Protocol*¹⁷³ gives state parties three options for the reduction of VOCs:

- a 30 percent reduction in the emissions of VOCs by 1999 using any year between 1984 and 1990 as a basis;¹⁷⁴
- a similar reduction within a Tropospheric Ozone Management Area (TOMA) that ensures that the 1999 emissions do not exceed the 1988 levels;¹⁷⁵
- or the stabilization of emissions in case the 1988 emissions did not exceed certain limits.¹⁷⁶

In addition state parties are required to adopt the appropriate emission standards for stationary¹⁷⁷ and mobile sources¹⁷⁸ and to encourage the

¹⁷² Implementation, *supra* note 149.

¹⁷³ Protocol concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes, Nov. 8, 1991, *reprinted in* 31 I.L.M. 573 (1992) available online <http://www.unece.org/env/lrtap/protocol/91voc.htm>.

¹⁷⁴ Art. 2(2)(a), *id.*

¹⁷⁵ Art. 2(2)(b), *id.* Designated tropospheric ozone management areas (TOMAs), for the purposes of this protocol, are certain areas of Canada (the Lower Fraser Valley in the Province of British Columbia and the Windsor-Quebec Corridor in the Provinces of Ontario and Quebec) and Norway.

¹⁷⁶ Art. 2(2)(c), *id.*

¹⁷⁷ Stationary sources that contribute to the creation of VOCs are: the use of solvents; the petroleum industry; the organic chemical industry; small-scale combustion sources; the food industry; the iron and steel industry; the handling and treatment of waste and agriculture. Annex II prescribes the best methods for the reduction of VOCs from stationary sources. *See id.*

¹⁷⁸ It has been estimated that road traffic is the major source of anthropogenic VOCs emissions and that it contributes between 30 and 40 percent of the total man-made VOCs emissions in the ECE as a whole. *See* Annex III, *id.*

development of products¹⁷⁹ that are as much as possible VOCs-free.¹⁸⁰ Furthermore state parties are to give the highest priority to the reduction of most harmful VOCs – that is VOCs with the highest Photochemical Ozone Creation Potential (POCP).¹⁸¹

State parties as a group have achieved the goals set by the protocol. Individually, though, only seven states appear to be in compliance while another four are in the course of being fully compliant. Countries like France and the Netherlands have yet to provide information to indicate progress and in Norway emissions have increased by more than 50 percent against a stabilization target taking 1988 as the base year.¹⁸²

*The Protocol on Heavy Metals*¹⁸³ concentrates on three metals that are proven to be quite harmful to human health and the environment namely cadmium, lead and mercury. State parties have to reduce emissions of these harmful metals below their 1990 levels or they can pick an alternative year between 1985 and 1995 as a base year.¹⁸⁴

The protocol provides for strict limit values for major stationary sources, the use of the best available technology, such as scrubbers and filters, and the initiation of mercury-free processes.¹⁸⁵ The limit values must be achieved within specific deadlines. New stationary sources have to comply with limit values two years after the entry into force of the protocol.

¹⁷⁹ If industry processes cannot be changed, other methods of VOCs reduction involve the alteration and substitution of different products. Such products include: adhesives used in households, paint products, housecleaning and personal care products. Annex II prescribes methods to alter or substitute products. *See id.*

¹⁸⁰ Art. 2(3) (a) (iii), *id.* Labeling is one of the methods to increase consumer awareness.

¹⁸¹ The POCP is the methodology that classifies VOCs according to their contribution to ozone pollution. Hydrocarbons with very low reactivity, like methane, methanol, ethane, and some chlorinated hydrocarbons contribute negligibly to the creation of ozone. The interaction of NO_x and sunlight, though, could contribute significantly to the creation of ozone. *See* Annex IV, *id.*

¹⁸² Implementation, *supra* note 149.

¹⁸³ Protocol on Heavy Metals, June 24, 1998, available online <http://www.unece.org/env/lrtap/protocol/98hm.htm>. The protocol is not yet in force. The European Community has adopted the Protocol. *See* Heavy Metals Protocol to the 1979 Convention on Long-range Transboundary Air Pollution, OJ L 134/41, 17.05.2001.

¹⁸⁴ Art. 3, *id.* *See also* Annex I, *id.*

¹⁸⁵ Annex V of the protocol provides for specific limit values for major sources of heavy metals such as:
the fossil fuel industry, the cement industry, the production of copper and zinc, the glass industry, the chlor-alkali industry and municipal, medical and hazardous waste incineration.
Id.

Existing stationary sources have to comply with limit values eight years after the entry into force of the protocol.¹⁸⁶

The protocol requires the parties to phase out leaded petrol¹⁸⁷ and mandates measures to reduce the heavy-metal content of different products. Significant exemptions are provided for state parties that cannot achieve the limit values established under the protocol.¹⁸⁸ Parties are required to keep inventories of emissions of heavy metals that would be available for EMEP monitoring purposes.¹⁸⁹

*The Protocol on Persistent Organic Pollutants (POPs)*¹⁹⁰ addresses the elimination of pollution caused by pesticides such as DDT and other dangerous substances such as PCBs. Annex I includes the POPs whose production and/or use must be eliminated.¹⁹¹ Annex II includes the POPs whose use must be restricted.¹⁹² And Annex III includes the POPs whose emissions must be reduced taking as a base a specific year and according to specific timescales.¹⁹³ Annex III includes POPs for which specific limit values are prescribed.¹⁹⁴ But when prescribed limit values cannot be met, exemptions are allowed.¹⁹⁵ Other exemptions are possible for research, public health

¹⁸⁶ Annex IV provides the timescales. *See id.*

¹⁸⁷ Annex VI provides that no later than six months after the entry into force of the protocol, the lead content of marketed petrol intended for on-road vehicles shall not exceed 0.013gr/l. *See id.*

¹⁸⁸ Art. 3(6) & (7), *id.*

¹⁸⁹ Art. 3(5), *id.*

¹⁹⁰ Protocol on Persistent Organic Pollutants, June 24, 1998, *reprinted in* 37 I.L.M. 513 (1998) available online <http://www.unece.org/env/lrtap/protocol/98pop.htm>.

¹⁹¹ Art. 3(1)(a), *id.* Such substances include: aldrin, chlordane, chlordane, DDT (only production, use with exceptions) dieldrin, endrin, heptachlor, hexabromobiphenyl, hexachlorobenzene, mirex, PCBs (with exceptions) and toxaphene.

¹⁹² Art. 3(1)(c), *id.* This Annex includes substances the use of which has been prohibited in Annex I with exceptions (such as DDT and PCBs) as well as HCH.

¹⁹³ *See* art. 3(5)(a), *id.* Such substances include: polycyclic aromatic hydrocarbons (PAHs), dioxins and furans (PCDD/F) as well as hexachlorobenzene (prohibited in Annex I but allowed for specific production and use in countries with economies in transition).

The base year to be used for the reduction of these substances is 1990 or any year from 1985 to 1995.

Annex VI provides the timescales for the application of limit values and best available techniques. For new stationary sources the deadline is two years after the entry into force of the protocol. For existing stationary sources the deadline is eight years after the entry into force of the protocol, *see id.*

¹⁹⁴ Art. 3(5)(b)(ii), *id.* The limit values are included in Annex IV. Annex V provides for the best available techniques for the control of emissions of persistent organic pollutants from stationary sources. Annex VII provides for the recommended control measures for the reduction of POPs from mobile sources. *Id.*

¹⁹⁵ Art. 3(7), *id.*

emergency issues or minor applications.¹⁹⁶ Exemptions, though, are not granted easily. A state requesting an exemption must provide the Secretariat with detailed information about: the name of the substance exempted, the purpose of the exemption, the conditions under which the exemption is granted, the length of time it applies and to which organization it applies.¹⁹⁷

State parties are required to keep inventories of the emissions of substances included in Annex III and an inventory on the production and use of Annex I and Annex II substances.¹⁹⁸ Efforts to increase public awareness with regard to the use of pesticides, including labeling and other informative activities, are recommended also.¹⁹⁹

3.4. Towards Integrated Protocols

The Protocol to Abate Acidification, Eutrophication and Ground-level Ozone was negotiated in parallel with the NECs Directive and addresses a number of pollutants in an integrated fashion.²⁰⁰ The protocol sets emission ceilings for four pollutants – sulphur, nitrogen oxide, VOCs and ammonia, though, not as stringent as those prescribed by the NECs Directive. The protocol sets also specific limit values for major emission sources and requires the use of the best available techniques for pollution abatement. The purpose of national emission ceilings and limit values is to achieve the main objective of the protocol – the reduction of emissions below critical loads.²⁰¹

Most of the substantive provisions of the protocol are included in the Annexes.²⁰² Annex II specifies all emission ceilings for sulphur, nitrogen oxide, ammonia and VOCs. Annexes IV through VI prescribe the limit values for stationary sources. And Annex VIII prescribes the emission limit values for mobile sources. Annex IX provides for measures that must be taken for the control of ammonia emissions from agricultural sources.

¹⁹⁶ Art. 4, *id.*

¹⁹⁷ Art. 4(3), *id.*

¹⁹⁸ Art. 3(8), *id.*

¹⁹⁹ Art. 6, *id.*

²⁰⁰ Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, Nov. 30, 1999, available online http://www.unece.org/env/lrtap/multi_h1.htm [hereinafter Protocol]. The protocol has been adopted by the European Community, *see* Protocol to the 1979 Convention on Long-range Transboundary Air Pollution to abate acidification, eutrophication and ground-level ozone, OJ L 179/3, 17.07.2003.

²⁰¹ *See* art. 2, *id.* For the critical loads of each pollutant, *see* Annex I, *id.*

²⁰² *See* art. 3, *id.*

It is estimated that when the protocol is fully implemented it would cut sulphur emissions in Europe by 63 percent, NO_x emissions by 41 percent, VOCs emissions by 40 percent and ammonia emissions by 17 percent compared with the 1990 levels of pollution. It is estimated also that areas with excessive levels of acidification will be reduced from 93 million hectares in 1990 to 15 million hectares. And that excessive levels of eutrophication will fall significantly. The life-years lost as a result of exposure to ozone will be about 2,300,000 lower in 2010 than in 1990 and there will be 47,500 fewer premature deaths from exposure to ozone.²⁰³

4. CONCLUSION

The Community efforts to manage air pollution exhibit the characteristics analyzed in Chapter 2: controlled differentiation and internationalization. Differentiation is evident in the adoption of the critical levels and loads concepts and the national emission ceilings. Differentiation is inter-winded with the goals of the Air Framework Directive: that the non-deterioration of air quality must be compatible with the principle of sustainable growth.

The room allowed for differentiation, however, is controlled by a number of detailed procedures for assessing and monitoring air quality. The right to differentiate is also circumscribed by the right to information that applies immediately when alert thresholds are exceeded. The fact that air pollution legislation is now re-organized under the Air Framework Directive makes air pollution management more coherent and sensible, an improvement that may assist in implementation. Before the adoption of the Air Framework Directive, it was difficult to establish an order from what seemed to be a patchwork of multiple regulations.

The inter-pollination between the Community management system and the international regime has been evident all through the development of Community legislation. It suffices to state that the concepts of critical levels and critical loads were applied first in the international context and then used by the Community. The close interplay between the international regime and the Community system has been beneficial for the control of air pollution in Europe.

²⁰³ See Protocol, *supra* note 200.

CHAPTER 5. REGULATING WATER POLLUTION

1. WATER POLLUTION: THE FACTS

Water pollution does not present the same transfrontier elements that air pollution presents. It is a more regional and local problem since some waters may fall just under a single state's jurisdiction or may present a problem for a region – such as the Baltic Sea or the Mediterranean Sea. Despite its more localized nature, though, water pollution is not a more tractable problem than air pollution. This is because of the large number of water pollutants and the number of diffuse sources that are responsible for water pollution. Widespread water pollution by land-based sources has yet to be handled effectively by regional or Community instruments. The implementation record of member states on this matter is quite dismal. The Court of Justice has found nine states guilty of non-compliance with water legislation in forty-two cases regarding seventeen directives. Many infringement proceedings are still pending.¹ Overall it has been stated that “there is hardly a single Water Directive which has been or is being implemented and enforced in the required form and to the required deadline.”² The causes for the implementation gap are multiple but center on the establishment of too general water pollution programs, lack of administrative and financial capacity and shortcomings in monitoring.³

Hazardous substances generated by industry are the culprits for the contamination of many waters in Europe. Such substances include heavy metals, pesticides, petrol and various other substances suspected to cause pollution. Other substances responsible for the deterioration of water quality include untreated wastewater and fertilizers used in agriculture.

Untreated wastewater is one of Europe's worst environmental problems. In the Mediterranean basin most of wastewater is still discharged untreated. Because of pressure by the Community, though, many countries have started to invest in wastewater treatment more aggressively.⁴

Nitrate pollution from diffuse agricultural sources presents a serious problem for drinking water. It is estimated that 800,000 people in France,

¹ Klauz Lanz & Stefan Scheuer, *European Environmental Bureau Handbook on the EU Water Policy under the Water Framework Directive* 7, Jan. 2001 [hereinafter EEB Handbook].

² Christoph Demmke, *Towards Effective Environmental Regulation: Innovative Approaches in Implementing and Enforcing European Environmental Law and Policy* 8, Jean Monnet Program, New York University School of Law, Jean Monnet Working Paper 5/01 (2001).

³ *Id.* at 9.

⁴ See *infra* Section 2.1.3.

850,000 people in the U.K. and 2.5 million people in Germany are drinking water with nitrate concentrations above those allowed by Community standards. It is estimated that it may take twenty-five to fifty years for nitrate concentrations to reach normal levels in the EU waters despite the aggressive cuts of fertilizers in many states.⁵

2. WATER PROTECTION LEGISLATION

The evolution of water pollution legislation presents an interesting pattern. The 1970s rules concentrated on the protection of the medium.⁶ This was the era when the first directives on drinking and bathing water were passed. These directives attempted to regulate the quality of water *per se* rather than the substances discharged into the water. In the mid-1970s and early 1980s the directives become more substance-oriented. The Dangerous Substances Directive,⁷ that regulated the discharges of specific substances into the water, was enacted in 1976.

In the late 1980s and the 1990s the focus on the medium remained strong, but the emphasis on the control of substances and especially the sources of pollution gained new attention. This was the period where the directives on the wastewater treatment and the control of nitrates from agricultural sources were adopted.

Finally in 2000 the Water Framework Directive was adopted. This directive has created a whole new system not only for the regulation of water pollution but also for the management of water as a resource.

The evolutionary pattern of the water legislation is an example of the intuitive approach that has been present in environmental regulation. The first directives were focused on the goal – that is the protection of water. It was realized eventually that the protection of water could not be achieved without the regulation of substances discharged into it. Even the 1990s legislation, that is more source-oriented, is inter-winded with many process provisions that include specific values for the discharges of wastewater and nitrates.

⁵ Pavlos D. Pazaros, *The Environmental Dimension of the Common Agricultural Policy*, Discussion Paper prepared for the seminar "The CAP and the Environmental Challenge – New Tasks for Public Administrations?" organized by the European Institute of Public Administration, Maastricht, May 14-15, 2001.

⁶ This is what some commentators call effect-oriented legislation. See Carel H.V. de Ville-neuve, *The European Approach to Water Pollution Control*, in *Environmental Law and Policy in the European Union and the United States* 159, 160 (Randall Baker ed., 1987).

⁷ See *infra* Section 2.1.1.

The culmination of attempts to control water quality by establishing processes rather than goals comes with the Water Framework Directive (WFD). The purpose of the WFD is to establish a system for water protection by enacting a number of processes that would make it difficult for states to deceive regulators. The system proposed under the directive, it is hoped, would assist states in taking control over their waters (for a conceptual map of the evolution of water legislation, *see* Figure 5.1.).

Regulation of marine pollution in the European Union has not been extensive since marine pollution has been viewed as a matter more appropriate for international lawmaking. The Community has undertaken efforts to control marine pollution from ships – one of the worst diffuse sources of marine pollution. In 2002 the Community established a Committee on Safe Seas and the Prevention of Pollution from Ships (COSS).⁸ The Community has amended also a directive on the carrying of dangerous goods and has enacted a traffic and monitoring system that controls, *inter alia*, the hazardous cargo of ships.⁹

⁸ Regulation (EC) No 2099/2002 of the European Parliament and of the Council of 5 November 2002 establishing a Committee on Safe Seas and the Prevention of Pollution from Ships (COSS) and amending the Regulations on maritime safety and the prevention of pollution from ships, OJ L 324/1, 29.11.2002. The purpose of this regulation is to improve maritime safety, prevent pollution from ships and improve shipboard conditions. This is hoped to be achieved by centralizing the tasks of various Committees under a single COSS Committee. The regulation established a conformity checking procedure. The purpose of this procedure is to reduce conflicts between the Community maritime legislation and international instruments and to ensure that any amendment of the international legislation that lowers the international standards is not adopted into the Community legislation.

⁹ Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, OJ L 208/10, 05.08.2002. The information that a ship must provide is quite extensive and includes:

- general information (such as vessel identification, port of destination, time of arrival);
- cargo information (such as hazardous substances carried, their UN and IMO hazard numbers and an address where more information can be obtained).

The directive requires member states to improve the infrastructure of their ships reporting systems. Ships calling to a port of a state must be equipped with an Automated Identification System (AIS) and Voyager Data Recorder System (VDR). Member states are encouraged to adopt sanctions for the implementation of the directive. Sanctions must be effective, proportionate and dissuasive.

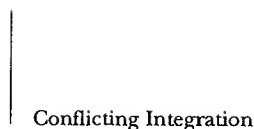
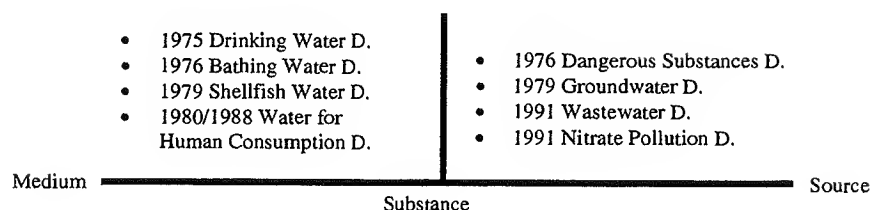


Figure 5.1. Conceptual Map of EC Water Legislation



2.1. The Legislative Approach of the 1970s, 1980s and 1990s

2.1.1. The 1970s: From Medium to Substance

The first directive that dealt with water pollution as an environmental issue with potential health implications was the Drinking Water Directive.¹⁰ The purpose of the directive was to protect human health from contaminated drinking water.¹¹ The directive classified drinking water into three categories – A1, A2 and A3 establishing thus three mandatory water quality drinking standards. A3 water is of the worst quality and intensive treatment is required for its purification. States were required to take measures within the next ten years to improve the quality of their drinking water, especially water falling under the A3 category.¹² The Annexes to the directive list all the numerical values and parameters that define the physical, chemical and microbiological characteristics of water. The directive encouraged states to take samples regularly to determine whether their water meets the values and parameters set in the directive. However, the sampling procedures, measurement requirements and analysis of water parameters were left upon states' discretion.¹³ The directive could be waived for *force majeure*, for instance, in case of natural disasters and floods.

The Drinking Water Directive has had a mixed record of success. A major complaint against the directive was the lack of flexibility and the insistence

¹⁰ Council Directive 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States, OJ L 194/26, 25.07.1975 [hereinafter Drinking Water Directive]. The very first piece of legislation to deal with water pollution involved the use of detergents and their effect on water quality. The directive enacted in 1973 was based on the rationale that the different national standards for detergents posed a threat to free trade. See Council Directive 73/404/EEC on the approximation of the laws of the Member States on detergents OJ L 347/51, 17.12.1973.

¹¹ All surface waters intended for human consumption and supplied through the public distribution system must be considered drinking water. See art. 1(2), Drinking Water Directive, *id.*

¹² Art. 4(2), *id.*

¹³ Art. 5(2), *id.*

on standards that may have little impact on public health.¹⁴ The directive was amended several times to meet new health requirements.¹⁵

The Bathing Water Directive¹⁶ was modeled after the Drinking Water Directive. The purpose of the directive is to cater to the comforts of swimmers rather than to protect the environment. Bathing water is defined as all running or still freshwater or seawater in which bathing is explicitly authorized or in which bathing is not prohibited and is traditionally practiced by a large number of people.¹⁷ This definition gives significant latitude to states to exclude many types of waters from the protection of the directive. States are required to take measures to ensure that all their bathing waters comply with the standards set by the directive within ten years after its entry into force.¹⁸ But the deadline can be extended if a state can justify that the extension is necessary.¹⁹ Exceptional geographical and weather conditions may warrant a waiver of the directive.²⁰

The directive could be characterized as a success with regard to the improvement of bathing water quality. This is because of the attention paid by the media to the yearly bathing water report issued by the Commission. The latitude provided by the directive in defining bathing waters was circumscribed by the Court of Justice, which struck down a U.K. approach to the directive that restricted the application of the directive to a small number of beaches.²¹

Despite the overall improvement of bathing waters, further action is necessary. Ten percent of Europe's coastal waters and 28 percent of inland bathing waters do not meet the required standards.²² The Commission has taken action against member states for their bad application of the directive. Non-compliance actions are pending against countries that are considered leaders in environmental policy such as Germany, the Netherlands and Sweden.²³

¹⁴ See Villeneuve, *supra* note 6, at 165.

¹⁵ See *infra* notes 79, 111.

¹⁶ Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water OJ L 31/1, 05.02.1976.

¹⁷ Art. 1(2), *id.*

¹⁸ Art. 3, *id.*

¹⁹ Art. 4(3), *id.*

²⁰ Art. 8, *id.*

²¹ Villeneuve, *supra* note 6, at 165.

²² European Environment Agency, Europe's Environment: the third assessment – Summary 45 (2003) [hereinafter Third Assessment].

²³ Commission of the European Communities, Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 11, SEC (2003) 804 [hereinafter Survey on Enforcement].

After the first attempts to control pollution in the medium, the Community focused its attention on the control of hazardous substances discharged in the water. The key instrument here is the Dangerous Substances Directive.²⁴ The Dangerous Substances Directive followed the structure of international agreements that were drafted during that time.²⁵ These agreements were based on lists of substances. Substances included in the so-called black list were not to be discharged into waters. Substances included in the gray listed were to be regulated according to a permit system.

Mimicking the international agreements, the Dangerous Substances Directive is based on two lists of substances. List I substances²⁶ are the most dangerous substances and List II substances are defined as substances for which limit values have yet to be set. List II substances²⁷ could have as

²⁴ Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community, OJ L 129/23, 18.05.1976 [hereinafter Dangerous Substances Directive].

²⁵ Such instruments include the London Dumping Convention. *See* Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, 26 U.S.T. 2403, TIAS No. 8165, 1046 U.N.T.S. 120. The black list – Annex 1 of the convention – includes the most dangerous substances. The dumping of these substances is prohibited but with exceptions. The gray list – Annex II – includes substances perceived to be less dangerous than Annex 1 substances. These substances can be discharged only if permitted by national governments. The white list – Annex III – includes all substances that can be dumped when a general permit is issued.

The London Dumping Convention followed in the footsteps of the Oslo Convention for the Prevention of Waste Dumping from Ships and Aircraft, *see* Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Feb. 15, 1972, *reprinted in* 11 I.L.M. 262 (1972).

Subsequently the model of black, gray and white lists was adopted by a number of conventions such as the Paris Convention for the prevention of pollution from land-based sources and the Helsinki Convention. *See* Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, June 4, 1974, *reprinted in* 13 I.L.M. 352 (1974). *See also* Helsinki Convention for the Protection of Marine Environment of the Baltic Sea Area, Mar. 22, 1974, *reprinted in* 13 I.L.M. 546 (1974). For an update on these conventions, *see infra* Section 3.2.

²⁶ List I includes: organohalogen compounds, organophosphorus compounds, organotin compounds, mercury and its compounds, cadmium, persistent mineral oils and hydrocarbons of petroleum origin, and persistent synthetic substances that may interfere with the use of water. *See* Dangerous Substances Directive, *supra* note 24. List I substances are defined in more generic terms than substances included under the OSPAR Convention.

²⁷ List II includes substances such as: metalloids and metals and their compounds; biocides and their derivatives not included in List I; substances that may affect the taste and smell of products destined for human consumption; toxic or persistent organic compounds of silicon, inorganic compounds of phosphorus, non-persistent mineral oils and hydrocarbons of petroleum origin; cyanides and fluorides and substances that can have adverse effects on the oxygen balance. *See id.*

adverse effects as List I substances but their specific effects depend on the sensitivity of the area in which they are discharged.²⁸

The directive regulates the discharges of dangerous substances into all types of waters including inland surface water, territorial waters, internal coastal waters and groundwater.²⁹ The discharges of List I substances are allowed based on a permit system. The permits are issued by member states and must include the limit values established by the Community.³⁰ These limit values must be promulgated by taking into account the best available technology not entailing excessive costs (BATNEEC).³¹

In exceptional circumstances states can adopt quality objectives, instead of limit values. Quality objectives are goal-oriented while limit values are process-oriented. Quality objectives are focused on the quality of waters that must be protected and are expressed as concentrations of pollutants in the specific waters. Limit values have to do with the nature of the discharge and are expressed as the maximum concentration of a substance permitted in a discharge. Quality objectives can take the place of limit values if a state can prove that it can meet the quality objectives without necessarily meeting the limit values.³² Both limit values and quality objectives are established based on the toxicity, persistence and accumulation of substances in living organisms and sediment.³³

The discharge of List II substances must be authorized specifically by member states. Authorizations must include the limit values that would lead to the achievement of quality objectives.³⁴ States are to establish their own limit values for List II substances through the adoption of programs for the control of water pollution. The Commission compares state programs in order to facilitate coordination in their implementation.³⁵

The Dangerous Substances Directive, in addition to establishing a framework for the discharges of dangerous substances into waters, includes some unexpected provisions. The directive provides, for instance, that the discharges of dangerous substances into the groundwater must be zero.³⁶

²⁸ See arts. 3 & 6, *id.*

²⁹ Art. 1(1), *id.*

³⁰ Arts. 3 & 6, *id.*

³¹ Art. 6(1), *id.*

³² The achievement of quality objectives must be subject to a monitoring procedure set by the Council on a proposal by the Commission. See art. 13, *id.*

³³ Art. 6(1) & (2), *id.*

³⁴ Art. 7(1) & (2), *id.*

³⁵ Art. 7(7), *id.*

³⁶ Art. 4(1), *id.*

This provision is antithetical to an approach that views pollution as a management problem that prevails later in the Water Framework Directive. Traces of a procedural approach to regulating pollution are evident already since states need to establish an inventory of their discharges. The Commission must be provided with a copy of the inventory.³⁷

The directive is important in that for the first time the Community attempted to seriously deal with discharges of substances into waters. The application of the directive was undermined, though, by unrealistic deadlines and the option given to states to establish water quality objectives instead of limit values. The inclusion of quality objectives was the outcome of a compromise that had to account for the British insistence on the absorptive capacity of the environment.³⁸

Member states have had significant difficulties in the application of the directive especially with establishing programs for the control of pollution and the promulgation of limit values for specific substances.³⁹ Despite these difficulties, and because of initiatives undertaken by regional bodies, for example the OSPAR and HELCOM Commissions,⁴⁰ hazardous substances in the North East Atlantic and the Baltic Sea have declined significantly. The pollution of rivers by heavy metals and chemicals seems to be decreasing also.⁴¹ The lack of knowledge about the effects of thousands of chemical substances produced in modern society underlines the vigilance required to keep the regime on track.⁴²

The limit values imposed by the Dangerous Substances Directive are similar to the standards adopted in the United States. In the United States – similarly to the Community – discharges of pollutants into the water are subject to a permit. To obtain permits to discharge pollutants, industries must meet technology-based treatment standards established by industrial category. States have the option to impose more stringent standards when the technology-based standards cannot maintain water quality for designated uses (swimming, fishing, drinking).⁴³

³⁷ Art. 11, *id.*

³⁸ John McCormick, *Environmental Policy in the European Union* 199 (2001) [hereinafter McCormick (environment)].

³⁹ Survey on Enforcement, *supra* note 23, at 11.

⁴⁰ See *infra* Section 3.2.

⁴¹ European Environment Agency, *Europe's Water: An indicator-based assessment – Summary 8* (2003) [hereinafter Indicator Assessment].

⁴² *Id.* at 4.

⁴³ Richard R. Bauer, *The United States Approach to Water Pollution Control*, in *Environmental Law and Policy in the European Union and the United States* 169, 173, *supra* note 6.

The 1979 Directive on the Protection of Groundwater⁴⁴ follows in the footsteps of the 1976 Dangerous Substances Directive. It establishes two lists of substances the discharges of which into the groundwater must preferably be avoided.⁴⁵ The purpose of the directive is to prevent and regulate the direct and indirect discharges of pollutants into the groundwater or any type of pollution which is to endanger human health, the water supply, living resources, the aquatic ecosystem or to interfere with other legitimate uses of the water.⁴⁶ The directive is quite strict since it bans or restricts the discharges of about thirty substances. Two controversial exceptions are allowed, however. The directive does not apply to wastes coming from dwellings not connected with the sewage system and located outside an area where groundwater is used for human consumption. The directive does not apply to the discharges of radioactive substances or small quantities of List I and List II substances.⁴⁷

The directive, like the Dangerous Substances Directive, provides that states must take all steps necessary to prevent the discharge into the groundwater of List I substances. The discharges of List II substances must be reduced also.⁴⁸ The List I and List II substances included in the directive are almost identical to the substances included in the Dangerous Substances Directive.⁴⁹ More specifically, with regard to List I substances, the directive provides that their discharges must preferably be prohibited. There is more latitude, though, with regard to indirect discharges. States are supposed to run an investigation with regard to indirect discharges.⁵⁰ Based on the investigation, states may decide to either prohibit an activity that causes an indirect discharge or authorize the activity provided that measures are taken to prevent the discharge.⁵¹ In case the groundwater is deemed unsuitable for other use, discharges may be allowed provided

⁴⁴ Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, OJ L 20/43, 26.01.1980.

⁴⁵ The directive defines groundwater as all water that is beneath the surface of the ground in the saturation zone or in direct contact with the ground and the subsoil. *See* art. 1(2), *id.* This definition of groundwater is broader than the definition of groundwater included in the WFD that covers only substantial bodies of groundwater.

⁴⁶ Art. 1(2), *id.*

⁴⁷ Art. 2, *id.*

⁴⁸ Art. 3, *id.*

⁴⁹ An exception involves the inclusion of cyanides in List I instead of List II, *id.*

⁵⁰ The investigation shall include:
examination of the hydrogeological conditions of the area concerned; the purifying elements of soil and subsoil; and the risk of pollution and alteration of the quality of groundwater due to the discharge. The investigation must establish whether the discharge of a substance into the groundwater is a satisfactory solution from an environmental viewpoint. *See* art. 7, *id.*

⁵¹ Art. 4(1), *id.*

that discharges do not impede groundwater exploitation and do not affect other ecosystems.⁵²

Similar provisions and derogations are provided for the discharges of List II substances. The goal for List II substances, though, is the reduction rather than the prevention of the discharge.⁵³

Obtaining permits to discharge polluting substances into the groundwater is not an easy task. For permits to be authorized they must include: the place of discharge, the method of discharge, the precautions that must be taken, the maximum concentration of the regulated substance in the discharge and monitoring requirements.⁵⁴ Permits are granted for only limited periods of time and must be reviewed every four years.⁵⁵ States are supposed to keep an inventory of permits authorized.⁵⁶ These inventories must be provided to the Commission upon request.⁵⁷

Despite these measures, the quality of groundwater failed to improve. Nitrates and pesticides remain the main culprits for groundwater contamination. Nitrate limit values are exceeded in one-third of the groundwater bodies across Europe.⁵⁸

The Shellfish Water Directive⁵⁹ is another medium-oriented legislation modeled after the Drinking Water Directive. However, because it was adopted after 1976, it is influenced inevitably by the Dangerous Substances Directive. The directive applies to coastal and brackish waters designated by member states as needing protection to support shellfish life and to contribute to the high quality of edible products.⁶⁰ From the outset then one can detect that the purpose of the directive is to protect human health and the quality of consumable products. No shellfish waters are to be protected under the directive unless a member state designates them for protection. As it was the case with the Drinking Water Directive, states must set the limit values for the parameters listed in the Annexes of the directive. For certain discharges the limit values set already by the

⁵² Art. 4(2), *id.* See also art. 4(3), *id.*

⁵³ Art. 5, *id.*

⁵⁴ Art. 9, *id.*

⁵⁵ Art. 11, *id.*

⁵⁶ Art. 15, *id.*

⁵⁷ Art. 16, *id.*

⁵⁸ Indicator Assessment, *supra* note 41, at 15.

⁵⁹ Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters, OJ L 281/47, 10.11.1979.

⁶⁰ Art. 1, *id.*

Dangerous Substances Directive must be followed.⁶¹ States must designate the shellfish waters that fall under the jurisdiction of the directive within two years after the adoption of the directive and may make additional designations or amendments as required.⁶² States must establish also suitable programs to ensure that shellfish waters, after their designation as such, would comply with the standards set out in the directive.⁶³ Further requirements are included for sampling and sampling frequency.⁶⁴ States can ask for exemptions from the provisions of the directive due to exceptional geographical and weather conditions.⁶⁵

2.1.2. The 1980s: Detailed Regulation of Substances

The Dangerous Substances Directive has been followed by a series of specific directives that set quality objectives and limit values for a number of polluting substances. Such directives include the Mercury Directive, the Cadmium Directive, the HCH Directive and a number of other directives that add substances to the Dangerous Substances Directive list.⁶⁶

The Mercury Directive⁶⁷ sets specific limit values, quality objectives, monitoring procedures and reference methods for the measurement of mercury in the water. Annex I prescribes the limit values and monitoring procedures.⁶⁸ Annex II includes the quality objectives.⁶⁹ Different quality objectives are prescribed for different water media. For instance, the quality objectives prescribed for territorial waters are different from the quality objectives established for inland waters. Member states are expected

⁶¹ Art. 3(3), *id.*

⁶² Art. 4, *id.*

⁶³ Art. 5, *id.*

⁶⁴ Art. 6, *id.*

⁶⁵ Art. 11, *id.*

⁶⁶ See Council Directive 86/280/EEC of 12 June 1986 on limit values and quality objectives for discharges of certain dangerous substances included in List 1 of the Annex to Directive 76/464/EEC, OJ L 181/16, 04.07.1986. The substances include: carbon tetrachloride, DDT and pentachlorophenol.

See also Council Directive 88/347 of 16 June 1988 amending Annex II to Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List 1 of the Annex to Directive 76/464/EEC, OJ L 158/35, 25.06.1988. These substances relate to aldrin, dieldrin, endrin, isodrin, hexachlorobenzene (HCB), hexachlorobutadiene (HCBd) and chloroform.

⁶⁷ Council Directive 82/176/EEC of 22 March 1982 on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry, OJ L 81/29, 27.03.1982 [hereinafter Mercury Directive].

⁶⁸ Limit values are expressed as monthly values and/or daily values – for instance, grams of mercury per ton of installed chlorine production capacity.

⁶⁹ Quality objectives are expressed in terms of the arithmetic mean of concentration (for instance, g/l) in the water in question and must not be exceeded in the course of a year.

to select the quality objective that would serve best the purpose of the directive – that is the elimination of all mercury pollution.⁷⁰ The limit values imposed under the directive must be checked by daily sampling.⁷¹ States are given more discretion in monitoring quality objectives. States report on the area in which the quality objective is applied, the location of sampling points, the frequency of sampling, methods of sampling and results obtained.⁷²

The Cadmium Directive⁷³ and the HCH Directive⁷⁴ are structured after the Mercury Directive establishing limit values,⁷⁵ quality objectives,⁷⁶ monitoring procedures⁷⁷ and reference methods for the analysis of water quality.⁷⁸

The detailed regulation of substances that characterized the 1980s did not detract attention from the control of the quality of the medium. The Water for Human Consumption Directive⁷⁹ adopted in the early 1980s supplemented the 1975 Drinking Water Directive. The directive covers all water intended for human consumption including water used in food production and water intended for the processing and preservation of products to be consumed by humans or water that is generally affecting “the wholesomeness of the foodstuff in its finished form.”⁸⁰ States are to establish limit values for the toxic and microbiological parameters listed

⁷⁰ Annex I, Mercury Directive, *supra* note 67.

⁷¹ *Id.*

⁷² Annex IV, *id.*

⁷³ Council Directive 83/513/EEC of 26 September 1983 on limit values and quality objectives for cadmium discharges, OJ L 291/1, 24.10.1983 [hereinafter Cadmium Directive].

⁷⁴ Council Directive 84/491/EEC of 9 October 1984 on limit values and quality objectives for discharges of hexachlorocyclohexane, OJ L 274/11, 17.10.1984 [hereinafter HCH Directive].

⁷⁵ Annex I, Cadmium Directive, *supra* note 73; Annex I, HCH Directive, *id.* The limit values are expressed in terms of grams of HCH per ton of HCH produced or milligrams of HCH per liter discharged.

⁷⁶ Annex II, Cadmium Directive, *supra* note 73. Quality objectives are expressed in terms of total concentrations of cadmium in different types of water (e.g., g/liter). *See also* Annex II, HCH Directive, *supra* note 74, in which quality objectives are expressed in terms of a number that demonstrates the total concentrations of HCH in different types of water, for instance, surface waters and territorial waters.

⁷⁷ *See* Annex I, Cadmium Directive, *supra* note 73. Like in the Mercury Directive the monitoring procedure is based on daily samples used to calculate the quantity of cadmium discharged per month. *See also* Annex I, HCH Directive, *supra* note 74.

⁷⁸ Annex III, Cadmium Directive, *supra* note 73. *See also* Annex III, HCH Directive, *supra* note 74.

⁷⁹ Council Directive 80/778/EEC of 15 July 1980 relating to the quality of water intended for human consumption, OJ L 229/11, 30.08.1980 [hereinafter 1980 Water for Human Consumption Directive].

⁸⁰ Art. 2, *id.*

in Annex I and for other parameters that they may deem appropriate.⁸¹ States cannot adopt limit values below the concentrations explicitly mentioned in the directive. Exceptions are allowed due to meteorological and geographical conditions⁸² and in cases of emergency as long as public health is not compromised.⁸³ The directive is quite ambitious with regard to the standards it sets and monitoring requirements⁸⁴ but, because of the large number of requirements imposed, states have had a hard time to keep up with compliance.⁸⁵ The Commission is still involved in a number of actions regarding the bad application of the directive.⁸⁶

2.1.3. The 1990s: Focus on Substances and Sources

While the 1980s directives are more substance-oriented, the 1990s legislation focuses, in addition to substances, on the control of the sources of pollution. This is the period when the Wastewater Treatment Directive is adopted and the Directive on the Control of Nitrates from Agriculture.

The 1990s legislative efforts start with an amendment of the Dangerous Substances Directive.⁸⁷ The amendment has added substances to the list of regulated substances according to the Community methodology of limit values, quality objectives and methods of measurement. The Dangerous Substances Directive amendment is followed by the directives on the regulation of wastewater and nitrate pollution.

The Wastewater Directive⁸⁸ was a response to concerns that untreated sewage was discharged into the coastal and fresh waters. In several EU states most of the urban wastewater is dumped untreated in the sea. For instance, 70 percent of wastewater in Belgium, 80 percent of sewage in Portugal and 90 percent of sewage in Britain are discharged into the waters with minimal if any treatment.⁸⁹

⁸¹ Art. 3, *id.*

⁸² Art. 9, *id.*

⁸³ Art. 10(1), *id.*

⁸⁴ Annex II provides for the monitoring methods and Annex III provides for the reference methods used for the analysis of water. The directive establishes a Committee on Adaptation to Scientific and Technical Progress, *see* art. 14, *id.*

⁸⁵ McCormick (environment), *supra* note 38, at 197.

⁸⁶ Survey on Enforcement, *supra* note 23, at 12.

⁸⁷ Council Directive 90/415/EEC of 27 July 1990 amending Annex II to Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in list 1 of the Annex to Directive 76/464/EEC, OJ L 219/49, 14.08.1990.

⁸⁸ Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, OJ L 135/40, 30.05.1991 [hereinafter Wastewater Directive].

⁸⁹ McCormick (environment), *supra* note 38, at 105.

The purpose of the Wastewater Directive is the regulation of collection, treatment and discharge of the urban wastewater and certain industrial wastewater.⁹⁰ The directive provides that all agglomerations⁹¹ must be provided with collecting systems for urban wastewater between 2000 and 2005 depending on their population equivalent.⁹² The construction, design and maintenance of collecting systems must take into account the best available technology not entailing excessive cost (BATNEEC).⁹³ Wastewaters entering collecting systems must be subject to secondary treatment⁹⁴ or other equivalent treatment. When wastewater pollution crosses state boundaries, cooperation among states is necessary.⁹⁵ States can differentiate between the standards they impose by distinguishing between sensitive areas in which stringent methods of treatment would apply and less sensitive areas in which methods of treatment can be more flexible.⁹⁶ States may issue also specific permits for the discharge of industrial wastewater into urban collecting systems.⁹⁷ Derogations are allowed but they are limited to exceptional cases when technical problems appear. States must submit the reasons for their derogation.⁹⁸

As a result of the directive and significant infrastructure investment, wastewater treatment in all parts of Europe has improved substantially since the 1980s. However, many large cities still discharge their wastewater almost untreated.⁹⁹ In 2002 the Commission took action against member states in several instances of bad application of the directive including insufficient designation of sensitive areas and non-compliance with the standards set by the directive.¹⁰⁰

⁹⁰ Art. 1, Wastewater Directive, *supra* note 88.

⁹¹ Art. 1(4) provides that agglomeration means an area where the population and/or economic activities are sufficiently concentrated for urban wastewater to be collected and conducted to an urban wastewater treatment plant or to a final discharge point. Agglomerations are defined in terms of population equivalent. *Id.*

⁹² For instance, agglomerations of more than 15,000 population equivalent had to comply with this requirement by 2000. *See* art. 3(1), *id.*

⁹³ Annex I(A), *id.* Article 10 provides that urban wastewater treatment plants must be built to comply with the requirements of the directive and must be maintained in order to ensure proper performance under all normal, local climatic conditions. *See id.*

⁹⁴ For the difference between primary and secondary treatment, *see* art. 1(7)-(8), *id.*

⁹⁵ Art. 9, *id.*

⁹⁶ Arts. 5 & 6, *id.*

⁹⁷ Art. 11, *id.* *See also* art. 13 and Annex III that refer to specific industrial installations, *id.*

⁹⁸ Art. 8, *id.*

⁹⁹ Such cities include: Brussels, Milan and Bucharest. *See* Indicator Assessment, *supra* note 41, at 12.

¹⁰⁰ Survey on Enforcement, *supra* note 23, at 12.

The Nitrates Directive¹⁰¹ was a response to alarming reports about the increasing nitrate content of drinking water supplies. The directive asks states to specify waters affected by nitrate pollution.¹⁰² States are required to issue codes of good agricultural practice and train the farmers to apply them.¹⁰³ These codes of good agricultural practice can become mandatory if states deem this to be an appropriate option.¹⁰⁴ Action programs must be put in place in areas vulnerable to nitrate pollution. Such programs are to include mandatory measures established under Annex III of the directive.¹⁰⁵

The effects of the Nitrates Directive have yet to be felt. Nitrate concentrations in rivers have remained stable all through the 1990s and are the highest in member states that support intensive agriculture.¹⁰⁶ Nitrate is a significant problem in parts of Europe with intensive livestock production.¹⁰⁷ In many countries drinking water is contaminated by nitrate. For instance three percent of drinking water samples taken in France, Germany and Spain exceed the nitrate concentrations allowed.¹⁰⁸ The Commission has taken action against a number of states for bad application of the directive especially in terms of failure to put into effect action programs.¹⁰⁹ Overall it is assessed that the implementation of the Nitrates Directive has been “extremely poor” all across Europe.¹¹⁰ All member states (with the exception of Denmark and Sweden) have had infringement proceedings brought against them.

The protection of water as it relates to public health remains paramount during the 1990s. In 1998 the Community amended the 1980 Water for Human Consumption Directive.¹¹¹ The amendment defines water intended

¹⁰¹ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources, OJ L 375/1, 31.12.1991.

¹⁰² Art. 3, *id.*

¹⁰³ Art. 4, *id.*

¹⁰⁴ Art. 5, *id.*

¹⁰⁵ According to Annex III mandatory measures shall ensure, for instance, that the amount of manure per hectare does not exceed 170 kg N. Other mandatory measures include the establishment of periods when the application of a certain type of agricultural fertilizer is to be prohibited. *See id.*

¹⁰⁶ Indicator Assessment, *supra* note 41, at 14.

¹⁰⁷ *Id.* at 15.

¹⁰⁸ *Id.* at 16.

¹⁰⁹ Survey on Enforcement, *supra* note 23, at 12.

¹¹⁰ Indicator Assessment, *supra* note 41, at 11.

¹¹¹ Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, OJ L 330/32, 05.12.1998 [hereinafter 1998 Water for Human Consumption Directive].

for human consumption even more broadly than the 1980 directive¹¹² and includes more stringent monitoring, measurement and investigation requirements. The directive establishes the right of the public to be informed in case the directive is not complied with.¹¹³ The right to information could curb the tendency of states to ask for exceptions from the provisions of the directive. The directive provides that water will be wholesome and clean if it is free from microorganisms and parasites and from any substances that in sufficient concentrations could constitute a danger to human health.¹¹⁴ An innovative element of the directive is that it does away with water quality objectives, which permeated the 1970s and 1980s policymaking, and concentrates exclusively on limit values.

The 1998 Water for Human Consumption Directive is bound to encounter obstacles in its implementation. As mentioned above, nitrate concentrations in drinking water are exceeded in many member states of the European Union.¹¹⁵ Sewage and animal waste are also significant sources of contamination of drinking water.¹¹⁶

2.2. The Water Framework Directive

The adoption of the Water Framework Directive (WFD)¹¹⁷ has to do with the realization that a more systematic approach to water pollution is needed based on the principles of what has been called Integrated River Basin Management (IRBM).¹¹⁸ Given the history of water legislation, that is full of implementation roadblocks, the adoption of the WFD has to do also with the belief that non-implementation emanates from the lack of capacity, the lack of means and tools and proper administration and cooperation. The directive comes to ensure that appropriate tools become available and administration and cooperation actually take place.

¹¹² Compare art. 2 of 1980 Water for Human Consumption Directive, *supra* note 79, with art. 1 of 1998 Water for Human Consumption Directive, *id.*

¹¹³ The directive provides that member states must take measures to ensure up-to-date information on the quality of water available to consumers, *see* art. 13(1), 1998 Water for Human Consumption Directive, *supra* note 111.

¹¹⁴ Art. 4, *id.* Annex 1 of the directive sets out the microbiological and chemical parameters and the values that must be met. *Id.*

¹¹⁵ Indicator Assessment, *supra* note 41, at 16.

¹¹⁶ *Id.*

¹¹⁷ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327/1, 22.12.2000 [hereinafter WFD].

¹¹⁸ *See, e.g., Strategies for River Basin Management: Environmental Integration of Land and Water in a River Basin* (Jan Lundqvist et al., eds., 1985).

2.2.1. Negotiating History

To some circles, the WFD is the outcome of extensive lobbying by environmental groups that are perceived to have usurped the Community legislative process. What is more accurate, though, is to see the directive as the outcome of tortuous negotiations between the Parliament, the Commission and the Council.¹¹⁹ The legislative adventure of the directive started in 1995 when the Parliament and the Council asked the Commission to propose more comprehensive legislation for the protection of water. The Commission drafted a proposal that was circulated broadly in a 1996 meeting attended by two hundred and fifty delegates, firms, national water providers, agricultural interests and environmental NGOs.

The industry was fully represented all through the legislative process but failed to put on a unified front. The chemical industry and agricultural industry opposed the directive's strict approach to pollution from diffuse sources. The private water industry, at the other extreme, was supportive of stringent standards at the source since such standards would reduce the costs of water treatment.¹²⁰ The water industry passes the costs of treatment to consumers. Passing fewer costs to consumers may reduce the controversy about who should bear the costs of water treatment. The public water industry, unlike the private water industry, was not conversant with the concept of full-cost pricing.¹²¹

Most governments were supportive of the general purpose of the directive. Some governments, though, undermined specific provisions of the directive based on feedback from domestic interests. Local governments were much less supportive since they viewed the River Basin Districts established under the directive as an administrative structure that could effectively reduce their control over local resources.

Environmental NGOs were very active in the adoption of the directive.¹²² Environmental NGOs were fearful that the "framework character" of the directive with the lack of explicit goals and discharge limits would make a mockery of implementation. They pushed for specific standards and

¹¹⁹ Maria Kaïka & Ben Page, *The Making of the EU Water Framework Directive: Shifting the Choreographies of Governance and the Effectiveness of Environmental Lobbying* 23-31, School of Geography and the Environment, Oxford University (2002) available on line <http://www.geog.ox.ac.uk/research/wpapers/economic/wpg02-12.pdf>.

¹²⁰ *Id.* at 19.

¹²¹ *Id.*

¹²² Such NGOs included: the European Environment Bureau (EEB), the World Wildlife Fund and the Royal Society for the Protection of Birds. *Id.* at 19-20.

advocated that the principles enunciated in the OSPAR Convention be included in the directive.¹²³

All through the negotiations it was obvious that environmental interests were more influential in the Parliament while the industry held sway in the Council. Eventually what was adopted was a compromise. Some of the provisions of the directive were weakened since the initial proposal: the provisions regarding the protection of groundwater; and the non-deterioration principle that applies now to the status rather than the quality of water. To make matters worse, the directive includes many derogations and deadline extensions. The principle of recovery of the treatment and distribution costs of water remained declaratory and non-enforceable.

Overall, though, the directive contains some important triumphs for environmental groups: a broad definition of hazardous substances – that includes substances that may be intrinsically hazardous;¹²⁴ and the institutionalization of public participation.

During the discussions of the directive, the Parliament's Committee for Research, Technological Development and Energy attempted to promote, through the WFD, the establishment of a "Trans-European Water Network." The proposal did not resonate with the Commission and the Parliament because it was viewed as technocratic – the idea of potentially linking all waters of Europe by canals and pipelines. Despite its technocratic connotations, networking is not totally undesirable. The WFD in effect, through the Integrated River Basin Management provisions, is creating a network of administrative units that must ensure that states "under their jurisdiction" network and cooperate in the management of their waters.

2.2.2. Purpose

- *Prevention of Deterioration and Achievement of Good Status*

The WFD is different from prior legislative efforts that dealt with particular water bodies. The directive attempts to regulate, instead, the entire water ecosystem in each and every region of the Community and beyond. The directive requires that waters of high ecological status remain undisturbed but for the rest of waters protection and sustainable use is the goal.

¹²³ *Id.* at 20.

¹²⁴ The definition of hazardous substances was greatly debated. Initially the Council insisted that substances should be classified as hazardous based on individual risk assessment rather than a nebulous concept such as "intrinsic hazard." *Id.* at 36.

According to the directive, all waters must achieve good ecological status either through the prevention of further deterioration or restoration. The directive provides that waters must preserve at least their current status – which means that waters of high status should not become waters of good status and that waters of good status should not end up as waters of moderate status.¹²⁵

- *Regulation and Elimination of Hazardous Substances*

The purpose of the directive is to contribute to the goals of international agreements, including the HELCOM and OSPAR Conventions,¹²⁶ on the prevention and elimination of discharges of hazardous substances. The goal is to achieve concentrations close to background values for naturally occurring substances and close to zero for man-made substances.¹²⁷ This provision explicitly mentioned as one of the goals of the directive has created turmoil in the chemical industry.

- *Regulation of Water Supply*

Although timidly mentioned, one of the goals of the directive is to provide the starting framework for the control of water supply.¹²⁸ With this goal in mind it is provided that the River Basin Management Plans must ensure a balance between the abstraction and recharge of groundwater. The directive introduces also the cost-recovery principle. According to the principle of cost-recovery, states must take into account the costs of water services, including environmental and resource costs, by conducting an economic analysis.¹²⁹

The principle of cost-recovery was more aggressively articulated in the draft version of the directive. The Commission had proposed that farmers, households and industry should be charged for the full price of water. The price was to include all costs of abstraction and distribution and the costs of wastewater treatment. Southern countries led by Spain objected to full pricing. Full pricing is a controversial issue in the South because of the large quantities of water used in agriculture. Overall the pricing of water is a divisive issue because it has to do with perceived entitlements to use

¹²⁵ Art. 1(a), WFD, *supra* note 117.

¹²⁶ See *infra* Section 3.2.

¹²⁷ Art. 1(e), WFD, *supra* note 117.

¹²⁸ Art. 1(e) provides that the aim of the directive is to contribute to the “provision of sufficient supply of good quality surface water and groundwater....” See *id.*

¹²⁹ The parameters for such an analysis are located in Annex III. See *id.*

water for free. As a matter of fact, some countries charge nothing for water while others pass the full costs to the consumer.¹³⁰

2.2.3. Organization

Establishment of River Basin Districts

The directive provides that member states must identify the water basins lying within their territory and must assign them to River Basin Districts. Groundwater and coastal water must be assigned to the nearest and most appropriate river basin district.¹³¹ If a river basin district expands beyond the territory of a state, the state is supposed to cooperate with other member states to establish international river basin districts.¹³² Member states are supposed to cooperate with non-member states when the river basin district extends beyond the Community territory.¹³³

After establishing the river basin districts, states must analyze their characteristics, review the impact of human activities and perform an economic analysis of water use.¹³⁴ States must identify within each river basin district the water intended for human consumption and must ensure that this water complies with the requirements of the 1998 Water for Human Consumption Directive.¹³⁵ States must establish also by 2006 the appropriate monitoring programs.¹³⁶

River Basin Management Plans

States are to provide the Commission with a list of their competent authorities and the competent authorities of international bodies with which they are to cooperate six months after the entry into force of the directive.¹³⁷ Once a competent authority is designated it is responsible for the production of the River Basin Management Plan (RBMP). By 2009 states must have ready their RBMPs.¹³⁸ States are encouraged to devise a single RBMP for each international river basin district but, when this is not achievable, they are supposed to devise, at least, a RBMP for the portion of the international river basin district that falls within their

¹³⁰ Kaika, *supra* note 119, at 16.

¹³¹ Art. 3(1), WFD, *supra* note 117.

¹³² Art. 3(3), *id.*

¹³³ Art. 3(5), *id.*

¹³⁴ Art. 5(1), *id.*

¹³⁵ Art. 7, *id.*

¹³⁶ Art. 8(2), *id.*

¹³⁷ Art. 3(8), *id.*

¹³⁸ Art. 13(7), *id.*

territory.¹³⁹ Thus lack of cooperation cannot provide a justification for not going ahead with the development of RBMPs.

What must be included in the RBMPs is detailed in Annex VII of the directive. RBMPs usually include: a general description of the characteristics of the river basin district; a summary of pressures from human activity; the mapping of protected areas; a list of environmental objectives for all types of water included; and an analysis of the economic usage of water. Each RBMP must include also a “programme of measures”¹⁴⁰ required to meet the objectives of the directive as delineated in article 4. The objectives have to do with the non-deterioration of the status of water bodies and the restoration of all water bodies to good ecological status (when such restoration does not entail excessive costs). The list of measures involves basic and compulsory measures and optional supplementary measures.

Basic measures are required to meet the standards of specific directives.¹⁴¹ These directives are: the Wastewater Directive,¹⁴² the IPPC Directive,¹⁴³ the Nitrates Directive,¹⁴⁴ the Bathing Water Directive,¹⁴⁵ the Drinking Water Directive,¹⁴⁶ the Environmental Impact Assessment Directive¹⁴⁷ and the Habitats Directive.¹⁴⁸ Basic measures must be taken also to meet the limit values and quality objectives established by directives¹⁴⁹ such as the Dangerous Substances Directive,¹⁵⁰ the Mercury Directive,¹⁵¹ the Cadmium Directive¹⁵² and the HCH Directive.¹⁵³ Other basic measures include a variety of safeguards for the quality of drinking water,¹⁵⁴ controls on the abstraction of groundwater and drinking water and standards for discharges of pollutants from point and diffuse sources.¹⁵⁵ Basic measures

¹³⁹ Art. 13(2) & 13(3), *id.*

¹⁴⁰ Art. 11, *id.*

¹⁴¹ Art. 10 & Annex IV, *id.*

¹⁴² See *supra* Section 2.1.3.

¹⁴³ See Chapter 3, Section 2.2.

¹⁴⁴ See *supra* Section 2.1.3.

¹⁴⁵ See *supra* Section 2.1.1.

¹⁴⁶ See *id.*

¹⁴⁷ See Chapter 3, Section 1.2.

¹⁴⁸ See Chapter 7, Section 2.1.

¹⁴⁹ Annex IX, WFD, *supra* note 117.

¹⁵⁰ See *supra* Section 2.1.1.

¹⁵¹ See *supra* Section 2.1.2.

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ Art. 11(3)(d), WFD, *supra* note 117.

¹⁵⁵ Art. 11(3)(g) & (h), *id.*

include also a prohibition of direct discharges of pollutants into the groundwater but with significant exceptions attached.¹⁵⁶

Supplementary measures are possible also.¹⁵⁷ Such discretionary measures may include economic instruments, regulations, codes of practice, negotiated agreements, research and education.

2.2.4. Classification of Waters

Classification of Surface Waters

Waters of good ecological status are defined in a way that accounts for the natural and climatic conditions as they vary across the Community. For instance, if an ecosystem presents characteristics not encountered in other similar ecosystems, these unique characteristics must be considered in defining good ecological status. Thus from the outset, it is differentiation rather than uniformity that determines the basis of action under the directive.

- *Initial Classification*

Annex V divides surface waters into five categories: rivers, lakes, transitional waters, coastal waters and artificial and heavily modified waters. Numerous types of water are found all across Europe with different ecological conditions.

- *Classification based on Ecoregions*

Annex II gives states an option on how to classify their waters. States can classify their waters into ecoregions according to System A or System B. System A identifies twenty-five ecoregions for rivers and lakes and six ecoregions for transitional and coastal waters. For each ecoregion further classification may be undertaken based on altitude, typology, geology and other physical characteristics.

System B provides for a number of obligatory and optional factors that can be taken into account in characterizing waters.¹⁵⁸ States are free to choose

¹⁵⁶ Art. 11(3)(j), *id.* For instance, groundwater used for geothermal purposes may be re-injected into the aquifers. States may authorize also the injection of water containing substances resulting from mining or the extraction of hydrocarbons.

¹⁵⁷ Art. 11(4) and Annex VI, *id.*

¹⁵⁸ For instance, for rivers the obligatory factors include: altitude, latitude, geology and size. The optional factors include: distance from the river source, acid neutralizing capacity, water depth, temperature and chloride content.

between System A and System B provided that the System B they develop allows for the same degree of differentiation as System A.

- *Classification based on Ecological Status*

After waters are classified according to the ecoregion they belong, further differentiation is necessary based on their ecological status.¹⁵⁹ Based on their ecological status, waters are classified as of high, good, moderate, poor and bad status.¹⁶⁰ In order to determine the proper status of waters quality elements such chemical and physiochemical elements are to be considered. For instance, for the classification of rivers¹⁶¹ into an ecological status an examination of quality elements, including biological,¹⁶² hydromorphological,¹⁶³ chemical and physiochemical elements, is required.¹⁶⁴ Similar elements are used to categorize lakes, transitional waters, coastal waters and heavily modified or artificial water bodies.

The classification of waters based on their status is made available in status maps that indicate with colors the quality of waters. Waters of high ecological status are presented as blue, waters of good ecological status are presented as green. The color for moderate ecological status is yellow, for poor ecological status is orange and for bad ecological status is red.¹⁶⁵

Establishing water quality to be something more than chemical quality is an innovative element of the directive. The discretion, though, given to states to classify their waters may create incentives to place waters under the least expensive category. This is the category of artificial or heavily modified waters. Member states are not required to restore these waters to good ecological status, something that could be prohibitively expensive, but to good ecological potential.

More specifically, article 4(3)(a) provides significant latitude to states that wish to identify certain waters as heavily modified. States may designate

¹⁵⁹ Annex V, WFD, *supra* note 117.

¹⁶⁰ Annex V, para. 1.2., *id*

¹⁶¹ Annex V, para. 1.1.1., *id*.

¹⁶² Natural ecological variability makes it impossible to establish absolute biological standards all through the Community. Biological quality has to be assessed, therefore, based on the degree of differentiation between the current status of water and what that status would have been without human influence.

¹⁶³ Hydromorphological elements include: the hydrological regime, river continuity and morphological conditions.

¹⁶⁴ The chemical and physiochemical elements have to do with temperature, salinity, oxygenation, acidification and a number of pollutants that have been identified in List I and List II of the 1976 Dangerous Substances Directive, *see supra* Section 2.1.1.

¹⁶⁵ Annex V, para. 1.4.2., WFD, *supra* note 117.

a body of water as artificial or heavily modified under the following condition:

when changes in the characteristics of water have adverse effects on the wider environment, navigation, including port facilities, the drinking water supply, irrigation, power generation, water regulation, flood protection, land drainage and other equally important sustainable development activities. This last provision of “other equally important sustainable development activities” gives states broad latitude in designating waters as heavily modified. States can designate also a body of water as heavily modified when the beneficial objectives served by the artificial or modified characteristics of the water cannot be achieved reasonably, for reasons of technical feasibility or disproportionate costs, by other means that are a significantly better environmental option.¹⁶⁶ Again what constitutes a significantly better environmental option is not adequately defined.

It is no wonder that the vague language surrounding the uses of heavily modified waters has raised red flags for environmental groups who are fearful that the purpose of the directive will be compromised. If excessive latitude is allowed states could identify a large portion of their waters as heavily modified waters. A reliable safeguard against the over-use of this provision is that the identification of waters must be specified in the RBMPs and, thus, classifications of waters as heavily modified are subject to public review and must be explained adequately.¹⁶⁷

Classification of Groundwater

The directive establishes parameters for the classification of the quantitative status and chemical status of groundwater. For the quantitative status, states must take measures to restore the bodies of groundwater and ensure a balance between the abstraction and recharge of groundwater.¹⁶⁸ With regard to the chemical status, states are required to take measures necessary to “reverse any significant and sustained upward trend in the concentration of any pollutant” in the groundwater.¹⁶⁹

In contrast with surface waters where many different classes apply, groundwater is classified into two categories: good and poor.¹⁷⁰ In addition,

¹⁶⁶ Art. 4(3)(b), *id.*

¹⁶⁷ *Id.*

¹⁶⁸ Art. 4(1)(b)(ii), *id.*

¹⁶⁹ Art. 4(1)(b)(iii), *id.*

¹⁷⁰ Annex V, para. 2.4.5., *id.*

monitoring requirements¹⁷¹ and presentation requirements for the status of water are established.¹⁷²

The standards for groundwater protection are not as clear as the standards for the protection of surface waters, and demands have been made on states to establish, at least, strong national criteria for assessing groundwater's chemical status. Clearer criteria are needed also to define "the significant and sustained upward trend" in the concentrations of pollutants in the groundwater.¹⁷³ Demands have been made also to apply the zero discharges approach of the Dangerous Substances Directive,¹⁷⁴ at least, with respect to the list of priority substances. At present the WFD prohibits the discharges of pollutants into the groundwater but with significant exceptions.¹⁷⁵

2.2.5. Regulation of Hazardous Substances

The decision on the number and nature of substances to be controlled under the directive with eventual goal their phase-out has been extremely controversial. The issue of the adoption of a list of priority substances and/or a list of priority hazardous substances was greatly debated. The water industry wanted as many substances as possible to be characterized of priority status since the regulation of such substances at the source could reduce the costs of removal.

An issue that pre-occupied states and the Community from the beginning had to do with the methodology that would identify the substances deserving priority consideration. It was eventually decided that the directive should include a stringent approach that would identify the risk posed by a substance and a more open approach that takes into account the "intrinsic hazard of a substance."

Article 16 provides that the identification of priority substances must be based on strict risk assessment as defined in Community instruments. The regulation discussed in this provision is the 793/93 Regulation¹⁷⁶ that provides for a risk assessment procedure based solely on scientific evidence and in which the burden of proof rests on a person who wants to prove a substance risky. Under this procedure, even if a substance is risky

¹⁷¹ Art. 8(1), *id.*

¹⁷² Annex V, para. 2, *id.*

¹⁷³ EEB Handbook, *supra* note 1, at 46.

¹⁷⁴ See *supra* Section 2.1.1.

¹⁷⁵ Art. 11(3)(j), WFD, *supra* note 117.

¹⁷⁶ See art. 16(2)(b), *id.*

measures will be taken only if it is determined that the costs to the industry are acceptable.

In addition to this strict risk assessment procedure, a simplified procedure is made available. This procedure attempts to determine “the intrinsic hazard of a substance” by taking into account its aquatic ecotoxicity and its human toxicity including evidence of widespread contamination. Other proven factors that may indicate the *possibility* of environmental contamination, such as the production and quantities of a substance discharged and the patterns of its use, must be considered also.¹⁷⁷

The discharges of hazardous substances are expressed either as environmental quality standards (EQSs)¹⁷⁸ or as Emission Limit Values (ELVs). As provided by older directives, quality standards have to do with the maximum concentration of a pollutant in a water body while limit values express the maximum amount of a pollutant in a discharge. The WFD accords priority to limit values mentioning that such values must be established first. If such values fail to meet the environmental quality standards for the specific body of water more stringent values must be set so that quality standards are met.¹⁷⁹ EQSs for point sources are based on the best available techniques. EQSs for diffuse sources are based on the best environmental practice.¹⁸⁰ Best available techniques and practices are provided for in the existing Community instruments including the IPPC Directive.¹⁸¹

Annex VI provides the list of directives whose standards are incorporated in the WFD. The list includes the Dangerous Substances Directive¹⁸² and Daughter Directives.¹⁸³ Annex IX provides ELVs and EQSs as established by a number of directives including the Mercury Directive,¹⁸⁴ the Cadmium

¹⁷⁷ Art. 16(2), *id.* See also Council Regulation (EEC) No 793/93 of 23 March 1993 on the evaluation and control of the risks of existing substances, OJ L 84/1, 05.04.1993.

¹⁷⁸ See generally art. 10, WFD, *supra* note 117. For the procedure of setting up chemical quality standards, see Annex V, para. 1.2., *id.*

¹⁷⁹ Art. 10(3), *id.*

¹⁸⁰ Art. 10(2), *id.*

¹⁸¹ See Chapter 3, Section 2.2.

¹⁸² See *supra* Section 2.1.1.

¹⁸³ See *supra* Section 2.1.2.

¹⁸⁴ *Id.*

Directive¹⁸⁵ and the HCH Directive.¹⁸⁶ Furthermore Annex VIII provides a list of indicative substances that are the main pollutants of waters.¹⁸⁷

The Commission adopted in 2001 a list of thirty-three priority substances.¹⁸⁸ The list replaces the list of dangerous substances provided for by the Dangerous Substances Directive. The list has been compiled by a procedure that combines EQSs and ELVs and it is referred to as the COMMPs procedure (combined monitoring-based and modeling-based setting scheme)¹⁸⁹ and by taking into account the OSPAR and HELCOM processes for defining dangerous substances.¹⁹⁰

2.2.6. Monitoring

Monitoring applies to all the stages of implementation of the directive. States are not only instructed to vaguely monitor the quality of their waters. Specific monitoring procedures are to be followed in each and every step of the application of the directive. Emphasis is placed more on the cause rather than the fact of non-compliance.

The directive provides for three types of monitoring: surveillance monitoring, operational monitoring and investigative monitoring. The purpose of surveillance monitoring is to facilitate the classification of waters prescribed under the directive – that is the classification of waters into different ecoregions and the classification of waters based on their status.¹⁹¹ The purpose of operational monitoring is to identify the waters that are at risk of failing to meet environmental objectives.¹⁹² The purpose

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

¹⁸⁷ Such substances include: organohalogen compounds, organophosphorous compounds, organotin compounds, cyanides, persistent hydrocarbons and persistent bioaccumulable organic toxic substances, arsenic and its compounds, biocides and plant protection products, materials in suspension, substances that contribute to eutrophication such as nitrates and phosphates, substances that may have unfavorable impact on the oxygen balance. *See also supra* notes 26 & 27 for a comparison with the substances regulated under the Dangerous Substances Directive.

A broader definition is included also that identifies substances based on their carcinogenic or mutagenic properties or properties which may affect the thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.

¹⁸⁸ Decision No 2455/2001/EC of the European Parliament and of the Council of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 200/60/EC, OJ L 331/1, 15.12.2001.

¹⁸⁹ Para. 7, *id.* The COMMPs procedure uses automated methods to rank hazardous substances when data are available. Expert opinion is used to validate the results.

¹⁹⁰ Paras., 13, 15 & 17, *id.*

¹⁹¹ Annex V, para. 1.3.1., WFD, *supra* note 117.

¹⁹² Annex V, para. 1.3.2., *id.*

of investigative monitoring is to uncover the reasons behind the failure of some waters to meet environmental objectives.¹⁹³ The directive provides also for the frequency of monitoring¹⁹⁴ and for additional monitoring requirements for protected areas.¹⁹⁵ All monitoring programs must be operational by 2006.

An issue that has plagued the assessment of compliance within the Community has to do with the comparability of monitoring results. Therefore, the WFD provides that states must represent their monitoring results in ratios between a reference parameter based on the undisturbed quality of water and the present condition.¹⁹⁶ Good ecological status is presented by values close to one and bad ecological status by values close to zero. States are to set their own class boundaries and their classification is to be followed by an intercalibration exercise performed by the Commission. The purpose of the exercise is to achieve some level of consistency among member states on how waters are classified across domestic jurisdictions. It has yet to be decided how exactly the boundaries between good, moderate and poor status would be set. For instance, should waters with a ratio of 0.7 be considered good or moderate?¹⁹⁷ Achieving uniformity across the Community in the classification of waters is not to be an easy enterprise. This is because the status of water determines the resources that states would have to devote to the implementation of the directive.

2.2.7. Public Participation

The institutionalization of public participation¹⁹⁸ distinguishes this directive from the other water directives. More specifically, the directive provides that states must encourage the participation of all interested parties in implementation, that is the production, review and updating of RBMPs. Public participation is encouraged in each and every step of the RBMPs, for instance in producing the timetable and work program, conducting the interim overview of significant management issues and drafting the first version of the plan.¹⁹⁹ States must supply interested

¹⁹³ Annex V, para. 1.3.3., *id.*

¹⁹⁴ Annex V, para. 1.3.4., *id.*

¹⁹⁵ Annex V, para. 1.3.5., *id.*

¹⁹⁶ Annex V, para. 1.4.1., *id.*

¹⁹⁷ EEB Handbook, *supra* note 1, at 20. Another issue that may cause consternation has to do with waters that may be of good biological status but are of moderate chemical status simultaneously.

¹⁹⁸ Art. 14, WFD, *supra* note 117.

¹⁹⁹ Art. 14(1), *id.*

parties with all background documents and information that have been used in the preparation of the plans and must give interested parties six months to comment on the documents they receive.²⁰⁰ Each and every update of RBMPs must go through the same procedure.²⁰¹

2.2.8. Timetable and Derogations

Timetable

The timetable provided under the directive is quite detailed with regard to what needs to be achieved and by what date. The directive guides states step-by-step on what they need to accomplish and by what deadline to be considered in conformance with the directive. When states ask for exceptions from this detailed timetable, they must provide detailed explanations.

Member states are to transpose the directive – the latest by 2003²⁰² – thus immediately adopting the goal of non-deterioration of water status. The competent authorities of river basin districts must be established within six months after the transposition of the directive.²⁰³ Competent authorities should start their operations by classifying waters. By 2004 each river basin district must have accomplished the following: an analysis of surface waters and groundwater, the impacts of human activity and an economic analysis of water use. By 2006 all monitoring programs must be put in place and the consultation process must start.²⁰⁴ By 2007 an overview of significant management issues within the river basin must be published. By 2007 the RBMPs must be given to interested parties for consultation.²⁰⁵ By 2009 the RBMPs must be agreed upon and measures must be taken for all waters to achieve good ecological status.²⁰⁶ By 2015 states must be able to protect or restore all bodies of surface water and groundwater to good ecological status.²⁰⁷ Heavily modified waters must be restored also to “good ecological potential.”²⁰⁸ The same deadline applies for protected areas whose good status must be preserved.²⁰⁹ By 2025 none of the

²⁰⁰ Art. 14(2), *id.*

²⁰¹ Art. 14(3), *id.*

²⁰² Art. 24, *id.*

²⁰³ Art. 3(8), *id.*

²⁰⁴ Art. 8(2), *id.*

²⁰⁵ Art. 14(1)(c), *id.*

²⁰⁶ Art. 13(6), *id.*

²⁰⁷ Art. 4(1)(a)(ii) & art. 4(1)(b)(ii), *id.*

²⁰⁸ Art. 4(1)(a)(iii), *id.*

²⁰⁹ Art. 4(1)(c), *id.*

substances included in the list of priority substances can be discharged into the waters.²¹⁰

Derogations

Plenty of derogations are allowed under the directive but they are not easy to obtain. This is primarily because states must explain fully why they need them and because they must include them in the RBMPs. The publication of derogations in the River Basin Management Plans would place the derogations under heavy public scrutiny. The differentiation allowed under the directive is, thus, tightly circumscribed by procedures that limit its application.

- *Derogations for force majeure*

Unforeseen or exceptional circumstances, floods and draughts and other *force majeure* circumstances would exempt states from applying the directive.²¹¹ In these cases all practicable steps must be taken to ensure that the objectives of the directive are not compromised.²¹² The effects of exceptional circumstances must be reviewed annually and all steps must be taken to restore the water to the status it had before the occurrence of the exceptional circumstance.²¹³ Even more important, a summary of the effects of the exceptional circumstance and the measures taken to address it must be included in the update of the RBMP.²¹⁴

- *Exceptions for expensive water restoration*

The directive provides that in case “a body of water is so affected by human activity or its natural quality is such that it may be infeasible or unreasonably expensive to achieve good status” less stringent environmental objectives may be set to prevent the further deterioration of water.²¹⁵

Article 4(5) provides that states may aim to achieve less stringent environmental standards for specific bodies of water so affected by human activity that the achievement of the standards would be infeasible or disproportionate.

²¹⁰ Art. 16(6), *id.*

²¹¹ Art. 4(6), *id.*

²¹² Art. 4(6)(a), *id.*

²¹³ Art. 4(6)(d), *id.*

²¹⁴ Art. 4(6)(e), *id.*

²¹⁵ Preamble, para. 31, *id.*

tionately expensive. In order to apply less stringent standards for certain bodies of water a number of requirements must be met:

- it must be established that the environmental and socio-economic needs served by the human activity cannot be achieved by other means, which present a better environmental option not entailing excessive costs;²¹⁶
- it must be determined that no further deterioration occurs in the body of water;²¹⁷
- and measures must be taken to ensure the least impact from human activities.²¹⁸

The application of less stringent environmental standards is to be published in the RBMPs²¹⁹ making states self-conscious about the necessity of applying for exceptions.

- *Exceptions from preservation of high status*

The directive provides that waters of high status must be preserved at that status. Exceptions are allowed, though, for new sustainable development activities provided that water of high status does not deteriorate below good status.²²⁰ In this case, specific practicable steps must be taken to mitigate the adverse impacts of human activity namely:²²¹

- a cost/benefit analysis between the preservation of environment and sustainable development must be performed;²²²
- and it must be proven that the benefits served by the deterioration of water body cannot “for reasons of technical feasibility or disproportionate cost be achieved by other means which are a significantly better environmental option.”²²³

The deterioration of status of protected water and the reasons for reaching such a decision must be explained and published in the RBMPs.²²⁴

²¹⁶ Art. 4(5)(a), *id.*

²¹⁷ Art. 4(5)(c), *id.*

²¹⁸ Art. 4(5)(b), *id.*

²¹⁹ Art. 4(5)(d), *id.*

²²⁰ Art. 4(7), *id.*

²²¹ Art. 4(7)(a), *id.*

²²² Art. 4(7)(c), *id.*

²²³ Art. 4(7)(d), *id.*

²²⁴ Art. 4(7)(b), *id.*

- *Extensions of deadlines*

States can extend the deadline of 2015 (the date when all waters are to achieve good ecological status) when:

such an extension would not contribute to the deterioration of the status of waters and in case when water improvement, within the timeline, is disproportionately expensive or technically infeasible; or in case the improvement in the status of water is prevented by natural conditions.²²⁵

The rationale for extending deadlines must be explained in the RBMP. A summary of measures required to bring waters to the desirable status within the designated extended deadline must be provided in the RBMPs.²²⁶

2.2.9. Overall Appraisal

The adoption of the directive was hailed as a success by the private water industry. The inclusion of the concept of full-cost pricing, the industry hopes, could help propagate a view of water as a commodity on which a price must be placed. The controls of pollution at the source encouraged by the directive were viewed also as positive since they reduce treatment costs.²²⁷ The chemical industry was much less satisfied especially because of the provisions for zero discharges that, while declaratory under the current framework, could become more substantive as the WFD is implemented by Daughter Directives.

The environmental camp is ambivalent about the adoption of the directive. There is a particular concern that the WFD, that eventually repeals many of the more specific directives of past decades, may not be able to take up the challenge of water protection. Environmental groups are overwhelmed particularly because of the large number of exceptions and derogations. Some environmental groups have characterized the directive as an instrument of “long deadlines, ambiguous provisions, an unclear level of protection as well as a large number of opt-out clauses and time extensions.”²²⁸ Despite these perceived shortcomings the organization of water management into river basin districts is considered a welcomed innovation.

²²⁵ Art. 4(4)(a), *id.*

²²⁶ Art. 4(4)(b)-(d), *id.*

²²⁷ Kaika, *supra* note 119, at 36.

²²⁸ EEB Handbook, *supra* note 1, at 9.

If all the provisions are taken into consideration, it seems that the directive is a balanced piece of legislation. Protection of waters is the goal but, at the same time, states are granted some flexibility in balancing protection with development goals. The timetable provided is quite ambitious given the level of organization and preparation required to put together the RBMPs and to classify all Community waters according to their ecological status. The flexibility provided by the directive with regard to the goals to be achieved is balanced by detailed procedures. These procedures give explicit tasks to states on how to organize themselves to meet the objectives of the directive. These procedures provide that states should tell the Commission and the world what they are doing and why they are doing it that way. The inclusion of detailed procedural requirements in the directive will curb states' discretion in implementing the directive.

The directive is an innovative piece of legislative work since it concentrates on the development of a methodology that would make possible the achievement of environmental objectives (Figure 5.2.). None of the Community prior directives were focused on developing a system that would drive implementation. They were, instead, target-oriented or process-oriented without designating the foundations of the administrative capacity needed to achieve the targets and control the process. The causes of implementation deficit, though, often lie in this lack of administrative capacity. The organization of the river basin districts and the power they would eventually wield will determine the success of this directive and the Daughter Directives to come.

An important element in the administrative organization of water protection is that it provides a forum for the exchange of ideas and for public participation. Administrative organization controls the flexibility provided under the directive by requiring states that wish to ask for exceptions to state their reasons in public. It is hoped that the process of explanation and publication in the RBMPs would discourage superficial requests for derogations.

It remains to be seen how successful the directive is. The question is whether this planned and methodological approach to regulation would be better than the sole prescription of targets the implementation of which is left to states' own devices. Given the lack of implementation, and especially the causes of non-implementation, the Community had no other option but to try a different approach. If successful, this approach could be transcribed into other areas of regulation.

Because of the history of poor implementation of the older directives and the complexity of the WFD, the Commission published an implementation

guide the purpose of which is to give non-binding guidance on how to implement the WFD.

The implementation strategy agreed in 2001²²⁹ established working groups to give informal guidance on key aspects of the implementation of the directive. An expert group, for instance, gives guidance on the development of criteria for assessing trends in groundwater pollution.²³⁰ A strategic coordination group coordinates the activities of the different working groups.²³¹ At this point, as the European Environment Agency has noted, a large gap exists between the requirements of the WFD, in terms of monitoring and classification of ecological status, and states' implementation.²³²

Water management in Europe is highly fragmented. Coordination, therefore, would be needed among the different bodies that manage waters and land-use planning boards. Extremely important would be the coordination with countries outside the sphere of the European Community. For instance, in the South East European region integrated water management should involve cooperation and sharing of knowledge among the countries of the region whether or not they happen to be members of the European Union.²³³

Because the deadlines imposed are quite challenging, existing institutional structures are likely to be used but most of them need to be reformed and structurally re-defined. Participation is to be a challenge if it is to involve more than consultation. Abundant funding and a clear mandate would smooth the functioning of RBMPs. Furthermore, what is necessary is the development of a consciousness that the WFD is not an experiment that should be allowed to fail.

²²⁹ Common Strategy on the Implementation of the Water Framework Directive, May 2, 2001 (Commission Working Paper).

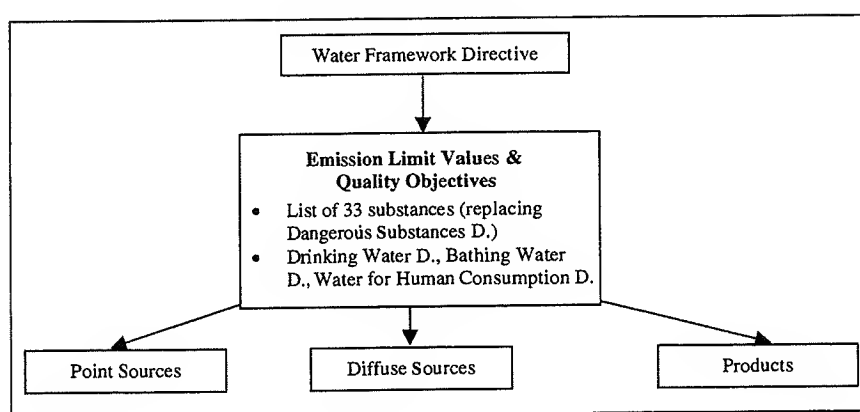
²³⁰ *Id.* at 9.

²³¹ *Id.* at 15.

²³² Indicator Assessment, *supra* note 41, at 7.

²³³ Such countries include: Greece, Bulgaria, Romania, Albania, Bosnia & Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Serbia & Montenegro. The South Eastern Europe Transboundary River Basin Program has been proposed as an elaboration of the Mediterranean component of the European Union Water Initiative. *See* the Athens Declaration adopted at a Conference held in Athens, Greece, "Sustainable Development for Lasting Peace: Shared Water, Shared Future, Shared Knowledge," May 6-7, 2003 (conference co-sponsored by the Hellenic Presidency of the European Union & the World Bank).

Figure 5.2. Structure of EC Water Legislation



3. INTERNATIONAL WATER PROTECTION REGIMES

International regimes have been a source of ideas for many of the legislative instruments of the Community. These regimes have been influenced, in turn, by Community developments.

3.1. Protection of Rivers: Rhine and Danube

The ICPR Regime

The Rhine regime is one of the oldest and most successful international regimes for the protection of rivers. The regime was launched in 1963 with the Convention on the Creation of an International Commission for the Protection of Rhine (ICPR) against Pollution. It was supplemented thirteen years later by the Convention on the Protection of Rhine against Chemical Pollution.²³⁴

The 1960s/1970s regime has been repealed by a 1999 Convention on the Protection of Rhine.²³⁵ The 1999 Rhine Convention has been influenced

²³⁴ For the history of the regime, see History-ICPR on its own behalf, available on the ICPR website <http://www.iksr.org/hw/icpr/1uk.htm>. See also Agreement on the International Commission for the Protection of the Rhine against Pollution, April 29, 1963. The agreement was adopted by the European Community in OJ L 240/50, 19.09.1977. See also Agreement on the Protection of Rhine Against Chemical Pollution (with annexes), Dec. 3, 1976, reprinted in 16 I.L.M. 242 (1976).

²³⁵ Convention on the Protection of the Rhine, April 12, 1999, reprinted in OJ L 289/31, 16.11.2000 [hereinafter 1999 Rhine Convention].

by the Convention on the Protection of North East Atlantic²³⁶ and the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes.²³⁷

The goals of the 1999 Rhine Convention are: to pursue sustainable development in the Rhine ecosystem, to ensure the production of drinking water and flood prevention and to help the restoration of the North Sea.²³⁸ The convention is based on the precautionary principle²³⁹ and the polluter pays principle²⁴⁰ as well as what sounds like a liability principle – “the principle of compensation in the event of major technical measures”²⁴¹ and the principle of application “of the state of the art and best environmental practice.”²⁴² Thus the ICPR regime goes even further than the other international regimes, for instance, the international regimes for the protection of seas. It directly establishes a principle of compensation not encountered in other regional instruments and, instead of proposing the use of best available technology (not entailing excessive costs), it boldly endorses the state of the art technology.

The obligations undertaken by the parties are similar to the obligations encountered in other international regimes. The discharges of hazardous substances should be reduced and eventually eliminated.²⁴³ The discharges of wastewater must be subject to authorization.²⁴⁴ Compliance with permits must be monitored and permit requirements must be reviewed frequently.²⁴⁵

Some of the hazardous substances regulated under the Rhine regime are included in the list of priority substances of the Water Framework Directive but there is not a total overlap between the lists.²⁴⁶ The good news is that the majority of hazardous substances for which monitoring data exist exhibit concentrations below the target values set by the Rhine regime. But few hazardous substances, such as mercury, cadmium and PCBs, are

²³⁶ See *infra* Section 3.2.1.

²³⁷ See Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Mar. 17, 1992, *reprinted in* 31 I.L.M. 1312 (1992).

²³⁸ Art. 3, 1999 Rhine Convention, *supra* note 235.

²³⁹ Art. 4(a), *id.*

²⁴⁰ Art. 4(d), *id.*

²⁴¹ Art. 4(f), *id.*

²⁴² Art. 4(h), *id.*

²⁴³ Art. 5(4)(b), *id.*

²⁴⁴ Art. 5(4)(a), *id.*

²⁴⁵ Art. 5(4)(c)-(d), *id.*

²⁴⁶ See State of Rhine: yesterday-today-tomorrow 9, Conference of Rhine Ministers, Jan. 29, 2001. See also Annex, Decision No 2455/2001/EC, *supra* note 188.

still found in high concentrations. Most of these difficult-to-control substances originate from diffuse sources.²⁴⁷

Wastewater discharges into the Rhine have been reduced significantly also since 90 percent of the households in the Rhine catchment area are connected to municipal sewage treatment plants.²⁴⁸

The success of the regime has to do with the resources of the signatory state parties that are affluent Western European countries.²⁴⁹ Also the small number of state parties facilitates monitoring and compliance. The parties to the regime are undertaking currently efforts to align the Rhine Convention with the WFD²⁵⁰ and the OSPAR regime examined below.²⁵¹ It is recommended that the list of hazardous substances be updated to reflect the WFD and OSPAR list of priority substances.²⁵² It is recommended that hazardous substances be reduced close to the background values endorsed by the OSPAR regime and the EU system²⁵³ and articulated in the WFD,²⁵⁴ the IPPC Directive,²⁵⁵ the Wastewater Directive²⁵⁶ and the Nitrates Directive.²⁵⁷

The ICPDR Regime

The Convention for the Protection of the Danube River²⁵⁸ was adopted two years after the adoption of the Convention for the Protection of Transboundary Watercourses.²⁵⁹ Danube is the second longest river in Europe running through a large number of countries including Germany, Austria, Bosnia & Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, Moldova, Romania, the Slovak Republic, Slovenia, Yugoslavia and Ukraine. Thus, unlike the Rhine regime, the Danube regime is to face challenges not only because of the large number of countries whose

²⁴⁷ State of the Rhine, *id.* at 3.

²⁴⁸ *Id.* at 2, 7.

²⁴⁹ State parties include: Germany, France, Luxembourg, the Netherlands and Switzerland.

²⁵⁰ See *supra* Section 2.2.

²⁵¹ See *infra* Section 3.2.1.

²⁵² See Rhine 2020: Program on the sustainable development of the Rhine, Summary, Section 2.3., Conference of Rhine Ministers, Jan. 29, 2001.

²⁵³ *Id.*

²⁵⁴ See *supra* Section 2.2.

²⁵⁵ See Chapter 3, Section 2.2.

²⁵⁶ See *supra* Section 2.1.3.

²⁵⁷ *Id.*

²⁵⁸ Convention on Cooperation for the Protection and Sustainable Use of the Danube River, June 29, 1994, *reprinted in* OJ L 342/19, 12.12.1997 available online <http://www.icpdr.org> [hereinafter Danube Convention].

²⁵⁹ See *supra* note 237.

policies need to be coordinated but also because of the issues²⁶⁰ that most of these countries are facing as they are restructuring their institutions and economies.

One of the objectives of the Danube Convention is to achieve the goals of “sustainable and equitable water management”²⁶¹ and to “at least maintain and improve the current environmental and water quality conditions of the Danube River.”²⁶² The convention is based on the precautionary principle and polluter pays principle²⁶³ and recommends the application of the best available techniques and best environmental practices.²⁶⁴ The convention allows for both emission limit values²⁶⁵ and water quality objectives.²⁶⁶ Annex II of the convention lists a number of industrial sectors that must be regulated and the substances whose discharges should be prevented or reduced considerably.²⁶⁷ The International Commission for the Protection of the Danube River (ICPDR), established under the convention, updates the list of substances at regular intervals.²⁶⁸ The list of substances, as established under the convention, is longer than the list of thirty-three substances established under the WFD.²⁶⁹ Additional emphasis is put on the importance of keeping emission inventories,²⁷⁰ harmonizing monitoring programs and methodologies²⁷¹ and reporting to the ICPDR on laws, activities, institutions and financial expenses related to the protection of the Danube River.²⁷² Providing information to the public on request²⁷³ has assumed the center stage under the obvious influence of the Aarhus Convention.²⁷⁴

A number of working groups have been established under the convention to assist in implementation. These include an emissions expert group (EMIS EG) and a Monitoring, Laboratory and Information Management Expert Group (MLIM EG). The Monitoring group is responsible for the

²⁶⁰ See, e.g., Aaron Schwabach, *The Tisza Cyanide Disaster and International Law*, 30 *Environmental Law Reporter* 10509 (2000).

²⁶¹ Art. 2(I), Danube Convention, *supra* note 258.

²⁶² Art. 2(2), *id.*

²⁶³ Art. 2(4), *id.*

²⁶⁴ Annex I, *id.*

²⁶⁵ Art. 7(I), *id.*

²⁶⁶ Art. 7(4), *id.*

²⁶⁷ Art. 7(3), *id.*

²⁶⁸ *Id.*

²⁶⁹ See Decision No 2455/2001/EC, *supra* note 188.

²⁷⁰ Art. 8, Danube Convention, *supra* note 258.

²⁷¹ Art. 9, *id.*

²⁷² Art. 10, *id.*

²⁷³ Art. 14, *id.*

²⁷⁴ See Chapter 3, Section 3.I.

TransNational Monitoring Network (TNMN).²⁷⁵ Monitoring results demonstrate that river quality has improved with regard to wastewater discharges due to technical improvements in Germany and Austria and the reduction and termination of activities of industrial polluters in Romania and Bulgaria.²⁷⁶ Further infrastructure projects, including the development of wastewater treatment plants, are likely to contribute even more to the improvement of water quality.²⁷⁷

Hazardous substances, and especially heavy metals, have been more resistant to controls and some concentrations are actually increasing.²⁷⁸ The ICPDR has identified the chemical, food, pulp and paper industries to be the major industrial polluters in the Danube River Basin.²⁷⁹ The ICPDR has issued already Recommendations on the Best Available Techniques for these sectors.²⁸⁰ The BREFs designed by the European Union in the context of the IPPC Directive have been taken into account in drafting these recommendations.²⁸¹

Pollution from diffuse sources especially agriculture and animal farming has yet to be adequately monitored and controlled. The establishment of inventories of pollutants from diffuse sources is one of the future goals of the state parties to the convention.²⁸² Another goal is the establishment of a list of priority substances that reflects the list of priority substances concocted under the EU system.²⁸³

3.2. Protection of Seas and ICZM

The Community has yet to develop an organized system for the protection of seas and coastal zones. Many directives, including the Bathing Water Directive, the Dangerous Substances Directive and the Water Framework Directive, address sea pollution and coastal area degradation partially

²⁷⁵ For the history of the TNMN, see ICPDR website, http://www.icpdr.org/pls/danubis/docs/folder/HOME/ICPDR/EXPERT_GROUPS/MLIM.

²⁷⁶ ICPDR, Joint Action Programme for the Danube River Basin, Jan. 2001-Dec. 2005, at 9, rev1-Final, IC 46, Jan. 30, 2001 [hereinafter Danube Joint Action Programme].

²⁷⁷ Foreword, *id.*

²⁷⁸ *Id.* at 9.

²⁷⁹ *Id.* at 13.

²⁸⁰ See Recommendation on Best Available Techniques in the Chemical Industry (IC/34), Sept. 5, 2000; Recommendation on Best Available Techniques in the Food Industry (IC/33), Sept. 5, 2000; Recommendation on Best Available Techniques in the Chemical Pulping Industry (IC/35), Sept. 5, 2000; Recommendation on Best Available Techniques in the Papermaking Industry (IC/36), Sept. 5, 2000.

²⁸¹ See Danube Joint Action Programme, *supra* note 276, at 13.

²⁸² *Id.* at 15.

²⁸³ *Id.* at 17.

through the control of substances discharged into the sea via rivers and other inland waters.

Coastal zones are usually defined as areas that extend ten kilometers landwards from the coastline.²⁸⁴ According to the EEA, 85 percent of European coasts are under pressure from poor water quality, coastal erosion, urbanization, agriculture and tourism. More specifically it is reported that the North Sea catchment area is densely populated with considerable industrial development and offshore oil and gas industry. In the Baltic Sea maritime traffic is intense. And the Mediterranean Sea is heavily impacted by tourism.²⁸⁵

The Community has engaged in efforts to develop a system of Integrated Coastal Zone Management (ICZM). The EEA has defined ICZM as a “dynamic, multidisciplinary and iterative process to promote sustainable management of coastal zones.”²⁸⁶ Many of the elements of ICZM are still in the process of being defined. A challenging matter would be to delimit the relationship between coastal zone management and river basin management since the WFD includes under its scope coastal waters.

A distinguishing element between coastal zone management and river basin management is that while rivers could be shared by many states, coasts are clearly under a state’s jurisdiction. Despite this technical matter, though, it would be difficult to separate coastal zone management from river basin management in areas where rivers end up in the sea and affect coastal zones. While coastal zone management has been associated more with land-use planning and marine resources management, and river basin management has been associated with fresh water management the linkages and interactions between the two management systems are all too obvious. The (United Nations Environment Program) UNEP-Water Branch and Priority Actions Programme Regional Activity Center (PAP/RAC) that focuses on the implementation of the Mediterranean Action Programme²⁸⁷ is exploring the application of Integrated Coastal Area and River Basin Management (ICARM).

²⁸⁴ See An Assessment of the Socio-Economic Costs and Benefits of Integrated Coastal Zone Management, Final Report to the Commission 5 (Prepared by Fim Crichton Roberts LTD and the Graduate School of Environmental Studies, University of Strathclyde, Nov. 2000).

²⁸⁵ European Environment Agency, Environment in the European Union at the turn of the century: Environmental Assessment Report No 2, at 314 (1999).

²⁸⁶ The definition is available in the glossary of the EEA official site available online <http://glossary.eea.int/EEAGlossary>.

²⁸⁷ See *infra* Section 3.2.3.

At the Community level, certain principles of ICZM have already been established and include:²⁸⁸

- a broad perspective (both thematic and geographic) which takes into account the interdependence and disparity of natural ecosystems;
- a long-term perspective (which takes into account the precautionary principle);
- adaptive management;
- respect for the carrying capacity of ecosystems;
- respect for the local specificity and great diversity of coastal zones (which requires the adoption of specific and flexible measures);
- participation of all parties concerned based on the principle of shared responsibility;
- support for the involvement of relevant administrative bodies at the national, regional and local levels and the coordination of existing policies;
- the use of a combination of instruments to increase coherence.²⁸⁹

Before developing national coastal zone strategies, it is recommended that states must be involved in stocktaking to analyze the major actors, laws and institutions that affect coastal zone management. Stocktaking should:

- cover a number of sectors (including fisheries, agriculture, transport, energy, resource management, species and habitats protection, cultural heritage, recreation and waste management);
- cover all administrative levels;
- analyze the interests and concerns of industry and citizens;
- identify the relevant inter-regional organizations;
- take into account the applicable policy and legislative measures.²⁹⁰

Using stocktaking as a baseline, a state must be ready to develop a national strategy or strategies that would implement the principles of integrated coastal zone management.²⁹¹ Such strategy should:

- identify the roles of different administrative actors;
- identify the appropriate mix of instruments for implementation;
- identify national/regional/local legislation or policies;
- identify measures to promote bottom-up initiatives;

²⁸⁸ Recommendation of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe, OJ L 148/24, 06.06.2002 [hereinafter ICZM Recommendation]. Prior measures involved: Strategy for Integrated Coastal Zone Management, COM (2000) 547; Council Resolution of 6 May 1994 on a Community Strategy for integrated coastal zone management, OJ C 135/2, 18.05.1994.

²⁸⁹ Chapter II, ICZM Recommendation, *id.*

²⁹⁰ Chapter III, *id.*

²⁹¹ Chapter IV, *id.*

- identify sources of durable financing;
- establish monitoring and information systems;
- and determine the appropriate training and education programs.

States are encouraged to implement existing conventions so as to establish better mechanisms of response to cross-border issues.²⁹²

It remains to be seen how ICZM will be incorporated into the agenda of states and how it would be meshed with the RBMPs and with the international instruments for the protection of seas.

3.2.1. The OSPAR Regime

The Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention)²⁹³ was adopted by the Oslo and Paris Commissions in 1992. The OSPAR Convention is a more intrusive instrument than the conventions it replaced.²⁹⁴ The convention has adopted the precautionary principle,²⁹⁵ the polluter pays principle²⁹⁶ and has endorsed the application of the best available technique (BAT) and the best environmental practice (BEP).²⁹⁷ It has prohibited incineration at sea²⁹⁸ and has included provisions for access to information.²⁹⁹

The convention has banned the dumping of low- and intermediate-level radioactive wastes but with exceptions.³⁰⁰ The dumping of wastes from offshore installations is prohibited also but discharges from offshore sources are still allowed subject to permits issued by the contracting parties.³⁰¹

The OSPAR Convention focuses on one of most untractable sources of marine pollution – that is pollution from land-based sources. The convention aims to eliminate pollution from such sources by encouraging

²⁹² Chapter V, *id.*

²⁹³ Convention for the Protection of the Marine Environment of the North East Atlantic, Sept. 22, 1992, *reprinted in* 32 I.L.M. 1069 (1993) [hereinafter 1992 OSPAR Convention].

²⁹⁴ *See supra* note 25.

²⁹⁵ Art. 2(2)(a), 1992 OSPAR Convention, *supra* note 293.

²⁹⁶ Art. 2(2)(b), *id.*

²⁹⁷ Annex I, art. 1(1), *id.*

²⁹⁸ Annex II, *id.*

²⁹⁹ Art. 9, *id.*

³⁰⁰ Exceptions are granted to the U.K. and France until 2008 provided that they undertake to report by 1997 on steps they have taken to explore alternative land options. For the exceptions that may be granted beyond 2008, scientific evidence would be required that the continued dumping is not harmful to the other uses of the sea. *See* Annex II, art. 3(3), *id.*

³⁰¹ Annex II, *id.*

the use of best available techniques and best available practices. Discharges from point sources are allowed only if the discharger has a legal permit.³⁰² In particular, the discharges of dangerous substances into the sea are an issue that has preoccupied the parties to the convention. The reduction and eventual elimination of pollution from substances that are toxic, persistent and liable to bioaccumulate is the primary goal of the OSPAR Commission established under the convention.³⁰³ The OSPAR Commission has developed a number of strategies to deal with environmental problems such as hazardous and radioactive substances and eutrophication.

Strategy on Eutrophication

The strategy centers on the precautionary principle and the polluter pays principle and applies both a target- and a source-oriented approach to the problem of eutrophication. Targets have to do with the prescription of quality objectives for different types of waters. Since quality targets are difficult to set intermediate targets are proposed that have to do with nutrient reduction and the control of the sources of pollution.³⁰⁴

Strategy on Hazardous Substances

In 1998 the parties to the OSPAR regime vowed to move toward the elimination of discharges of dangerous substances by 2020. The specific goal here is to achieve concentrations near background values for naturally occurring substances and close to zero for man-made substances.³⁰⁵ This is exactly the goal established under the WFD.³⁰⁶ The strategy repeats the precautionary principle and the polluter pays principle and the importance of the use of best available techniques and best environmental practices.³⁰⁷ The strategy places emphasis on the principle of substitution – namely the substitution of hazardous substances by less hazardous or non-hazardous substances.³⁰⁸ The strategy mentions that the EU efforts must be taken into account in identifying hazardous substances.³⁰⁹ Pollution from diffuse sources is an important issue to address since such

³⁰² Annex I, art. 2(1), *id.*

³⁰³ Annex I, art. 3, *id.*

³⁰⁴ OSPAR Strategy to Combat Eutrophication, Ministerial Meeting of the OSPAR Commission, July 22-23, 1998, Reference Number: 1988-18, Annex 36, Ref. §B-6.6.

³⁰⁵ OSPAR Strategy with regard to Hazardous Substances, Ministerial Meeting of the OSPAR Commission, July 22-23, 1998, Reference Number: 1998-16, Annex 34, Ref. §B-6.3 [hereinafter Hazardous Substances Strategy].

³⁰⁶ See *supra* note 127.

³⁰⁷ Hazardous Substances Strategy, *supra* note 305, at 1.

³⁰⁸ *Id.*

³⁰⁹ *Id.* at 3.

sources are large in number, highly diverse and extend over a wide geographical area.³¹⁰

Hazardous substances under the OSPAR regime have been identified broadly not only as substances that are toxic, persistent and liable to bioaccumulate but also as substances that, while they do not meet these criteria, give rise to an equivalent level of concern.³¹¹ In order to control hazardous substances effectively, the OSPAR Commission has adopted a List of Chemicals for Priority Action. This is the list of chemicals for which parties to the convention must take action either to prohibit them or widely restrict them.³¹²

In addition to the priority list, the OSPAR regime has developed a List of Substances of Possible Concern. The List of Substances of Possible Concern is to be a dynamic list of substances that have been identified based on their hazardous properties of persistence (P), tendency to bioaccumulate (B) and toxicity (T). Substances can be included, though, even if they do not exhibit P, B and T properties. Substances could be isolated for their impact on endocrine disruptors or their frequent presence in the environment.³¹³

The WFD has endorsed OSPAR's wider definition of hazardous substances.³¹⁴ While the list of chemicals for priority action and the thirty-three substances adopted under the WFD are not the same, they significantly overlap. Further coordination for the alignment of dangerous substances between the two regimes is needed.

³¹⁰ *Id.*

³¹¹ Annex I, 1992 OSPAR Convention, *supra* note 293.

³¹² Three steps need to be followed to identify the chemicals that belong to the List of Chemicals for Priority Action. The first step identifies the substances on the basis of their toxicity, tendency to bioaccumulate and persistence. These substances are placed on the "List of Substances of Possible Concern." The second step ranks substances according to their actual occurrence and effects on the marine environment. The third step places a selected number of substances on the "List of Chemicals for Priority Action." The List of Chemicals for Priority Action is based on system called DYNAMEC (Dynamic Selection and Prioritization Mechanism for Hazardous Substances) which is published on the OSPAR website. See OSPAR List of Substances of Possible Concern, Reference Number 2002-17, available on line <http://www.ospar.org/eng/html/substances/content.htm>.

³¹³ When experimental data are not available substances are identified by employing different models – for instance, QSARs (Quantitative Structure Activity Relationships). See *id.*

³¹⁴ See *supra* Section 2.2.5.

Strategy on radioactive substances

The strategy for radioactive substances is more modest than the hazardous substances' strategy. Given that some states are still dumping radioactive wastes in the sea, the OSPAR Commission must ensure that by 2020 future discharges of radioactive substances above historic levels of concentration are close to zero. Since historic levels are not identified in the strategy, though, it is difficult to quantify allowable future discharges.³¹⁵

3.2.2. The HELCOM Regime

The Helsinki Convention for the Protection of the Baltic Sea (HELCOM Convention) was adopted in 1974.³¹⁶ The convention, like the OSPAR Convention, was amended in 1992³¹⁷ with modernizing provisions such as the precautionary principle³¹⁸ and the polluter pays principle³¹⁹ and the application of BAT and BEP.³²⁰ The first Helsinki Convention established the Baltic Marine Environmental Protection Commission – HELCOM Commission. While contributions for the running of HELCOM are supposed to be shared equitably among countries, in practice most contributions are made by the wealthier western states. Most of the work of HELCOM is executed by a number of highly specialized working groups. The basic policy instruments are Ministerial Declarations and Recommendations. About two hundred recommendations have been adopted of which one hundred and thirty-four are still valid. A large number of recommendations have dealt with the control of discharges of dangerous substances from point and diffuse sources. For instance, recommendations have been issued for the control of pollution from industrial point sources, municipal waste treatment, agriculture, forestry and transport.³²¹

³¹⁵ OSPAR Strategy with Regard to Radioactive Substances, Ministerial Meeting of the OSPAR Commission, July 22-23, 1998, Reference Number: 1998-17, Annex 35, Ref:SB6.5.

³¹⁶ See *supra* note 25.

³¹⁷ Convention on the Protection of the Marine Environment of the Baltic Sea, April 9, 1992 available online <http://www.helcom.fi/helcom/convention.htm> [hereinafter 1992 HELCOM Convention].

³¹⁸ Art. 3(2), *id.*

³¹⁹ Art. 3(4), *id.*

³²⁰ Art. 3(3), *id.*

³²¹ Recommendations on the control of pollution from point sources include: recommendations on the reduction of emissions from pulp and paper, from the iron and steel industry, from metal surface treatment, from oil refineries, from pesticide production, from the chemical industry, from the leather industry and from the textile industry. Other recommendations address discharges of dangerous substances such as DDT, anti-fouling paints and mercury from dentistry. For a summary of HELCOM Recommendations and their implementation, see Helsinki Commission, Summary Report on Implementation

The convention has prohibited incineration at sea.³²² The convention has adopted explicit provisions with regard to the regulation of dangerous substances that are reminiscent of the Dangerous Substances Directive and the WFD. For instance, the criteria for the classification of harmful substances include toxicity, bioaccumulation and other characteristics likely to cause pollution. Harmful substances are grouped into two lists – the black list (which includes DDT, PCBs and PCTs) and the gray list (substances to be reduced and eventually banned).³²³

In 1998 the parties to the convention decided to reduce the discharges of dangerous substances by 50 percent by 1995.³²⁴ However, only a small number of parties were able to reach that goal. Eventually parties decided to set more specific targets with the goal the elimination of hazardous substances by 2020.³²⁵ Such hazardous substances are included in a list of two hundred and eighty substances of which forty-three substances are declared to be of priority status.³²⁶

The HELCOM regime is comprised of diverse states with different approaches to regulation. For instance, the western Baltic States rely heavily on emission limit values while eastern Baltic States prefer environmental quality standards since these standards are usually non-technology-forcing. Most of the HELCOM recommendations have focused on emission limit values rather than quality standards.³²⁷

3.2.3. The MAP Regime

The regulation of pollution in the Mediterranean Sea started in the early 1970s when many states in the region lacked the expertise to deal with pollution regulation and to enact monitoring controls. The first instrument that was adopted was the Mediterranean Action Plan (MAP), which provided the general guidelines for the protection of the Mediterranean. The MAP was adopted together with the Barcelona Convention that was

of HELCOM Recommendations under HELCOM TC, HELCOM 21/2000, Feb. 24, 2000, 21st Meeting, Helsinki, Mar. 20-21, 2000.

³²² Art. 10, 1992 HELCOM Convention, *supra* note 317.

³²³ Annex I, *id.*

³²⁴ See Henrik Selin & Stacy D. VanDeveer, Hazardous Substances and the Helsinki and Barcelona Conventions: Origins, Results and Future Challenges, paper presented at the Policy Forum Management of Toxic Substances in the Marine Environment: Analysis of the Mediterranean and the Baltic 7, Javea, Spain, Oct. 6-8, 2002 [hereinafter HELCOM & MAP].

³²⁵ *Id.* at 8.

³²⁶ *Id.* at 9.

³²⁷ *Id.* 5-6.

administered by the UNEP Regional Seas Office. The Barcelona Convention was adopted in 1976³²⁸ and was amended in 1995³²⁹ but the amended version of the convention has yet to enter into force. With the amendment of the convention came the amendment of the protocols that are still to be ratified by state parties.³³⁰ The amended version of the Barcelona Convention contains all the relatively new concepts of international environmental law, included in the OSPAR and HELCOM regimes, such as the precautionary principle, the polluter pays principle, the BAT and the BEP. Other innovative provisions include the protection of biological diversity³³¹ and the provision on the transboundary movement of wastes and their disposal.³³² It is unfortunate, therefore, that contracting parties report their compliance based on the 1970s regime.

³²⁸ Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention), Feb. 16, 1976, *reprinted in* 15 I.L.M. 290 (1976).

³²⁹ Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, June 10, 1995, *reprinted in* OJ L 322/34, 14.12.1999 available on line <http://www.unep.ch/seas/main/med/medconvi.html> [hereinafter 1995 Barcelona Convention].

³³⁰ The protocols include:

- The Mediterranean Dumping Protocol (Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft), signed in 1976 and entered into force in 1978. The Protocol was amended in 1995. The Dumping Protocol has banned the disposal of hazardous substances. *See* Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, June 10, 1995 available on line <http://www.unep.ch/seas/main/med/mdumpii.html>.
- The Emergency Protocol (Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in cases of Emergency), signed in 1976 and entered into force in 1978. The Protocol was amended in 2002 by the Prevention and Emergency Protocol. *See* Protocol Concerning Co-operation in Preventing Pollution from Ships and, in cases of Emergency, Combating Pollution of the Mediterranean Sea, Jan. 25, 2002. The EC Commission has proposed the adoption of the Protocol. *See* Proposal for a Council Decision concerning the signing of a new Protocol to the Barcelona Convention concerning cooperation in preventing pollution from ships and in combating pollution of the Mediterranean Sea by oil and hazardous and noxious substances in cases of emergency, COM (2002) 0011 final.
- The Mediterranean Land-Based Sources Protocol (Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources), signed in 1980 and entered into force in 1983. It was amended in 1996. The Land-Based Sources Protocol has not banned the disposal of hazardous substances contrary to what the Dumping Protocol has done. It is more difficult to ban pollution from land-based sources than ship discharges. The Land-Based Protocol lists thirty sectors of activity that must be regulated. A list of priority substances is also mentioned but with no deadlines for their elimination. *See* Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities, Mar. 7, 1996 available online <http://www.unep.ch/seas/main/med/mlbspaii.html>.

³³¹ Art. 10, 1995 Barcelona Convention, *supra* note 328.

³³² Art. 11, *id.*

The failure to ratify the amended version of the Barcelona Convention and the protocols has created a hiatus between the MAP regime and the HELCOM and OSPAR regimes. In these later regimes, parties try to implement the most updated concepts of international environmental law, while the countries of the Mediterranean region are still measuring their compliance based on the vague provisions of a 1970s regime.

The MAP regime is more decentralized than the HELCOM regime. The convention is administered by the UNEP Regional Seas Office and does not have its own Committee devoted to implementation. As the convention evolved a sort of Secretariat has developed. The parties have established six regional activity centers (RACs) to coordinate regional activities on different issues.³³³ Overall the MAP regime has relied upon different organizations for assistance, for instance, a number of scientific organizations and UN bodies. NGOs have not played an important role in the development of the MAP regime.³³⁴ Financial contributions for the execution of the convention are put into a trust fund to which \$10 million are supposed to be contributed annually. However, this amount is never reached.³³⁵ Some state parties to the convention, such as France, Italy and Spain, could be major contributors but none of these countries is eager to assist in the implementation of the convention.

The MAP regime has been shadowed not because of lack of good intentions but because of lack of administrative and financial capacity. In order to address the causes of implementation deficit, the parties set up a Strategic Action Program (SAP) with the financial assistance of the Global Environment Facility (GEF). The purpose of SAP is to help parties develop their national programs with the goal the elimination of pollution from land-based activities by the year 2025.³³⁶

Other issues that need to be addressed urgently involve the lack of data and poor reporting. No clear and specific data exist on the discharges of polluting substances in the Mediterranean Sea. Because of the lack of data, it is impossible to compare compliance among countries and establish quantitative baselines from which the reduction of pollution will be calculated.³³⁷

³³³ HELCOM & MAP, *supra* note 324, at 15. Such RACs include: the Specially Protected Areas RAC, the Environmental Remote Sensing RAC and the Cleaner Production RAC (which promotes the reduction of industrial wastes).

³³⁴ *Id.* 15-16.

³³⁵ Amounts contributed in 1990 were \$5.45 million. In 1996 the amount reached \$6.75 million. *Id.* at 16.

³³⁶ *Id.* at 20.

³³⁷ *Id.* at 23.

3.3. Comparisons

- *Definition of Hazardous Substances*

A common element between the Community approach and the three international regimes for the protection of seas is the definition of hazardous substances. All four regulatory approaches define hazardous substances not only as substances that present toxicity, persistence and bioaccumulation but also as substances that may give rise to concern because of their intrinsic hazard. Under the Rhine and Danube regimes states have undertaken efforts to align their regulations with the WFD and, consequently, with the definition of hazardous substances under the WFD.

The lists of hazardous substances adopted by the international regimes do not always overlap. Certain substances are included in some lists but not in others. Quite often substances not strictly regulated in a regime make the list of priority substances in another regime. There is a general realization, however, that the lists adopted by all five international regimes should reflect eventually the list of priority substances established under the auspices of the European Union.

- *Standards*

With regard to the application of standards the EU regime adopts both the regulatory approaches of limit values and quality objectives with a marked preference for limit values. The OSPAR and HELCOM regimes, though, are almost exclusively based on limit values. The ICPDR and ICPR regimes are based on a mixed approach using both limit values and quality objectives.³³⁸

- *Overall Regulatory Approach*

The Community approach was a medium approach to become a substance approach to end up as a system approach. The approach of the international regimes is simultaneously substance- and source-oriented and often there is an effort to control the substance and source simultaneously. Most of the OSPAR, HELCOM and ICPDR recommendations resemble in ambition the 1990s directives that do not only name the substance to be controlled but also the source.

A structural difference between the international regimes and the EU system involves the regulation of products that are potentially hazardous.

³³⁸ See *supra* Section 3.1.

The OSPAR, HELCOM and ICPDR recommendations usually attempt to address the whole lifecycle of a product while the EU regulations – often stricter – address the different aspects of a product with different pieces of legislation, for instance, pollution control instruments, waste management rules or eco-labeling.³³⁹

Given their structure, it makes more sense to compare the international recommendations to the IPPC Directive. The recommendations attempt an integrated approach to discharges and target specific industries something that is not present in the EU instruments that deal specifically with water. The BREFs, adopted under the IPPC Directive for each and every industry, are more comparable to the recommendations issued under the OSPAR and HELCOM. The difference between the BREFs and the recommendations issued by the international regimes is that the BREFs propose a range of limit values and that the lower limit values proposed under that range are usually well below the values prescribed by the international regimes.³⁴⁰ The ICPDR regime has proceeded with the adoption of recommendations that take into account explicitly the BREFs.³⁴¹

When comparing the HELCOM regime with the OSPAR regime the OSPAR regime comes out stronger. Generally, the OSPAR recommendations are more stringent than the HELCOM recommendations and often do not cover the exact same points as the HELCOM recommendations. It is proposed, therefore, that efforts must be devoted to further harmonize the two regimes in terms of their substantive provisions and the nature of substances covered.³⁴²

Further harmonization is recommended also on how limit values are expressed. It is proposed that recommendations should express limit values in a way that is possible to allow for direct comparisons with the BREFs' limit values.³⁴³ Reporting requirements and sampling procedures must be similar under all regimes in order to relieve the excess burden of performing different procedures and reporting different figures.³⁴⁴

³³⁹ See Helsinki Commission, Harmonization of HELCOM Recommendations with EU Directives and OSPAR Decisions and Recommendations, at 6, Final Report, March 2001 [hereinafter Harmonization].

³⁴⁰ *Id.*

³⁴¹ See *supra* Section 3.1.

³⁴² See Harmonization, *supra* note 339.

³⁴³ *Id.* at 12.

³⁴⁴ *Id.*

CHAPTER 6. REGULATING WASTE POLLUTION

1. WASTE MANAGEMENT: THE FACTS

Waste production is increasing all over the world. The Community generates about 2,000 million tons of waste each year of which 40 million is classified as hazardous.¹ Between 1990 and 1995 waste production increased by 10 percent per year.² In 1999, in the United States, another big waste producer, 20,000 hazardous waste generators produced over 40 million tons of hazardous waste.³ Nuclear power is responsible for the steady increase in the amount of nuclear waste for which no permanent disposal is yet available.⁴

Legal landfills are becoming full and, because of public opposition to any form of waste disposal (the Not-In-My-Backyard-Yard syndrome – NIMBY), the costs have skyrocketed. Industries wary of public opposition and high costs are more than willing to export their wastes legally or illegally to developing countries with less stringent environmental standards. Waste exports to countries with less stringent environmental standards started in the 1980s and are still quite prevalent.⁵

Because waste trade could jeopardize sound waste management, an international regime on waste movements has been developing under the framework of the Basel Convention.⁶ The convention attempts to regulate international waste movements based on the prior notification and informed consent of importing country and it bans waste movements to developing countries. The convention adopts the goals of waste management as found in classic waste management textbooks:⁷ countries must try to minimize their wastes first and, if that is not achievable, try to recycle or recover them and then treat them and/or incinerate them. Landfill disposal is only a last resort option for managing wastes.

¹ European Commission, *EU Focus on Waste Management* 3 (1999).

² *Id.*

³ See United States Environmental Protection Agency (U.S. E.P.A.) homepage (www.epa.gov) for information on hazardous waste. The amount of hazardous waste produced in the United States is available online <http://www.epa.gov/epaoswer/osw/basifact.htm#howmuchhaz>.

⁴ European Environment Agency, *Europe's Environment: the third assessment – Summary* 41 (2003).

⁵ See Elli Louka, *Overcoming National Barriers to International Waste Trade: A New Perspective on the Transnational Movements of Hazardous and Radioactive Wastes* 103 (1994).

⁶ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Mar. 22, 1989, *reprinted in* 28 I.L.M. 649 (1989).

⁷ For a summary of waste management methods, see Louka, *supra* note 5, at 75.

The convention's rationale for waste transfers centers on the principles of proximity and self-sufficiency – that each country should become self-sufficient in managing its wastes and that wastes should be disposed preferably close to the place of generation. In another study, I have criticized these principles as incompatible with the goals of sound waste management. I have argued that the principles of proximity and self-sufficiency, instead of leading to waste minimization, would increase the number of waste disposal facilities and foster illegal waste movements.⁸

The Community has followed the international model on waste movements. It has prohibited all kinds of waste transfers for disposal to developing countries and has adopted the principles of prior notification and informed consent, proximity and self-sufficiency.⁹ As analyzed later in this chapter, these principles are bound to cumber integrated sound waste management at the Community level.

The Community has adopted also the goals of sound waste management in a comprehensive system by imposing stringent standards on waste disposal, treatment and recovery.

2. HAZARDOUS WASTE MANAGEMENT: A COMPREHENSIVE SYSTEM

The 1970s and 1980s waste legislation was quite flexible and adopted a piecemeal approach to waste regulation by attempting to control specific hazardous wastes. In the 1990s the Community abandoned the flexible approach of the 1970s and 1980s, and endorsed a command-and-control approach. The change in legislative approach was prompted by the failure of states to implement Community environmental legislation. The new Community legislation has imposed stringent deadlines attenuated with exceptions for states lacking the economic and technological capability to comply immediately providing, thus, ample room for differentiation. In other instances, the Commission, instead of proposing directives, has proposed regulations – legislative instruments that become national law without requiring action on the part of states – imposing even more restrictions on the amount of differentiation granted to states.

Other elements of the new Community legislation include more stringent monitoring mechanisms and a comprehensive approach to waste management. Moreover, while the previous waste directives were conceived as

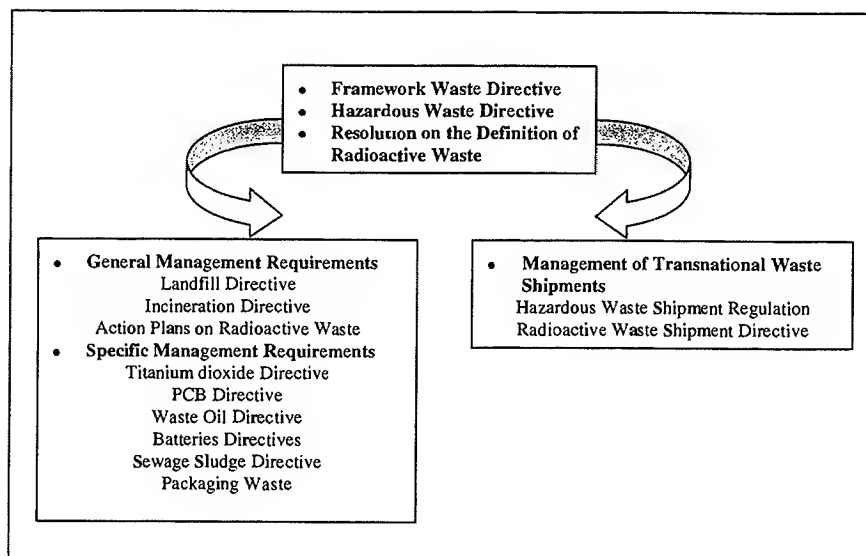
⁸ See generally Louka, *supra* note 5.

⁹ See *infra* Section 4.3.

fragmented pieces of legislation unrelated to one another, the 1990s directives have been envisioned as parts of a larger legislative plan for waste management (Figure 6.1.).¹⁰ This larger plan on waste management is undermined by the Community waste transfer regime that emphasizes self-sufficiency in waste management.

The waste management legislation is the quintessential process legislation since it attempts to control the handling of a large number of substances that cause pollution. Even the first legislative instruments were process-oriented as they targeted specific waste streams. Eventually, a medium – and a source – approach acquired parallel importance and the Community in the 1990s adopted the Landfill Directive and the integrated Incineration Directive. The Landfill Directive attempts to protect the soil, groundwater and air that are affected by the disposal of waste. The Incineration Directive attempts to protect comprehensively all media (air, water, soil, groundwater) through the regulation of a number of substances produced by a specific source of pollution – incineration plants. The substance approach was never abandoned, however, as the Community has expanded its regulatory reach over hazardous substances and has imposed myriad requirements for their management and transfer (Figure 6.2.).

Figure 6.1. Structure of EC Waste Legislation



¹⁰ See, e.g., Council Resolution of 24 February 1997 on a Community strategy for waste management OJ C 76/1, 11.03.1997.

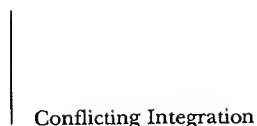
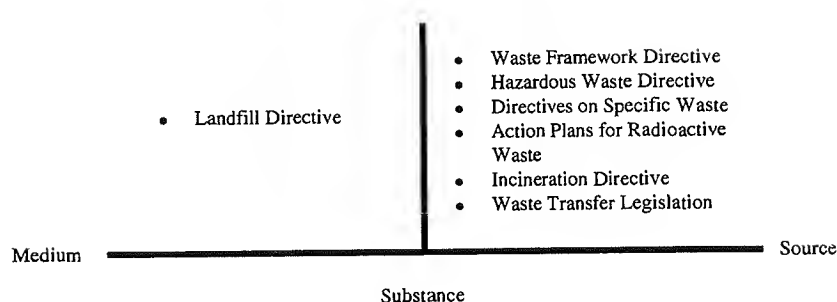


Figure 6.2. Conceptual Map of EC Waste Legislation



2.1. A Framework for Managing Wastes

The 1975 Waste Directive¹¹ and the 1978 Hazardous Waste Directive¹² were amended in 1991. The 1991 amendments¹³ bring the directives closer together. The 1991 amendment of the Hazardous Waste Directive refers systematically to the Waste Directive thus establishing the Waste Directive as the Framework Directive for all wastes.¹⁴ The Framework Directive applies to all specific-waste directives unless provided otherwise.¹⁵

The Framework Directive defines, for the first time, “waste” at the Community level. Annex I specifies the waste categories covered by the directive and includes household wastes, products whose use has expired and a variety of industrial wastes. The Commission is authorized to prepare, not later than April 1, 1993, a list of wastes that belong to the categories included in Annex I.¹⁶ The list drafted by the Commission must be reviewed and revised periodically. Radioactive wastes are excluded from the scope of the directive only “where they are already covered by other legislation.”¹⁷ In this manner, the Framework Directive may apply to

¹¹ Council Directive 75/442/EEC of 15 July 1975 on waste, OJ L 194/39, 25.07.1975 [hereinafter 1975 Directive].

¹² Council Directive 78/319 of 20 March 1978 on toxic and dangerous waste, OJ L 84/43, 31.03.1978 [hereinafter 1978 Directive].

¹³ Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442 on waste, OJ L 78/32, 26.03.1991 [hereinafter Framework Directive]. Council Directive 91/689/EEC of 12 December 1991 on hazardous waste, OJ L 377/20, 31.12.1991 [hereinafter 1991 hazardous waste amendment].

¹⁴ See Proposal for Council Directives amending Directive 75/442 on waste, on hazardous waste, Explanatory Memorandum, at 2, COM (88) 391 final.

¹⁵ *Id.* at 5.

¹⁶ Art. 1(a), Framework Directive, *supra* note 13.

¹⁷ Art. 2, *id.*

radioactive waste, since there is no extensive legislation on radioactive waste management at the Community level.

The definition of hazardous waste has been improved also. The 1978 directive provided a limited list of toxic and dangerous substances that, if detected in certain quantities and concentrations, would classify wastes as dangerous. Under the 1991 directive, the Commission must prepare a list of hazardous wastes.¹⁸ In deciding whether a waste is to be incorporated in the list, the Commission must examine whether it possesses one or more of the hazardous characteristics listed in Annex III. And certain wastes, to be defined as hazardous, have to present not only hazardous characteristics, but also hazardous constituents.¹⁹ In preparing the list, the Commission must take into account also “the origin and composition of the waste and, where necessary, limit values of concentration.”²⁰ Any other waste that member states consider hazardous may be included in the list.²¹

Both the lists of wastes and hazardous wastes can be amended according to a procedure, analyzed in the Framework Directive,²² and embodied in all waste directives.²³ This procedure applies whenever the directive needs to be amended because of scientific progress.²⁴ This procedure is to be followed for the preparation of consignment notes, standard papers for waste transfers and questionnaires.

The purpose of questionnaires²⁵ is to monitor more effectively states’ compliance. States must report to the Commission every three years, based on a questionnaire prepared by the Commission, on their implementation

¹⁸ Art. 1(4), 1991 hazardous waste amendment, *supra* note 13.

¹⁹ Annexes I.B., II, *id.*

²⁰ Art. 1(4), *id.*

²¹ *Id.*

²² The Commission must represent to a committee composed of member states and chaired by the Commission a draft of the measures to be taken. The committee must deliver its opinion within the timeframe set by the chairman depending on the urgency of the matter. The committee must decide by qualified majority. If there is a disagreement between the Commission and the committee, or if the committee has not decided, the Commission must submit to the Council without delay a proposal on the measures that must be taken. The Council must decide by qualified majority. If the Council does not decide within three months after the matter is referred to it by the Commission, the Commission may adopt the proposed measures. *See* art. 18, Framework Directive, *supra* note 13.

²³ The list of wastes and hazardous wastes has been updated. *See* Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, OJ L 226/3, 06.09.2000.

²⁴ Art. 17, Framework Directive, *supra* note 13.

²⁵ Art. 16, *id.* Art. 8(1), 1991 hazardous waste amendment, *supra* note 13.

measures. The Commission must, in turn, report to the Parliament.²⁶ The Commission must compare states' hazardous waste plans, disposal and recovery methods and make this information available to other states. Member states must send to the Commission the names and addresses of their waste management facilities with information on the treatment methods they apply, and the types and quantities of waste they handle.²⁷ This information broadens the knowledge base of the Commission and of member states about the capacity of existing facilities. In particular, the required comparisons between different waste management plans could increase the overall efficiency of waste movements.

Permits, inspections,²⁸ and record keeping facilitate monitoring and enforcement.²⁹ Every disposal and recycling facility must obtain a permit.³⁰ Recycling facilities and enterprises that use onsite disposal, however, may be exempted from permit requirements if states have enacted general rules for the activities³¹ undertaken by these enterprises, specifying the types and quantities of wastes handled and the conditions under which the exemptions may apply.³² Facilities have to register, though, even if exempted.³³ Waste collectors and transporters must register as well.³⁴

Exceptions are not easily obtained since it is deemed important to control the differentiation permitted. If a state intends to exempt recycling facilities, it has to send the relevant legislation to the Commission. The Commission must consult with the other member states, and put the matter to a vote.³⁵ Recycling is treated favorably in both directives due to the importance attached to its advancement. The Framework Directive

²⁶ Art. 8(2), 1991 hazardous waste amendment, *id.*

²⁷ Art. 8(3), *id.*

²⁸ Art. 13, Framework Directive, *supra* note 13. Art. 4(1), 1991 hazardous waste amendment, *id.*

²⁹ Art. 14, Framework Directive, *id.* Art. 4(2) & (3), 1991 hazardous waste amendment, *id.*

³⁰ The permit must cover: the types and quantities of waste to be accepted in a facility, the technical requirements, the security precautions, the disposal site and the treatment method. *See* art. 9(1), Framework Directive, *id.*

³¹ The activities undertaken by these facilities must be environmentally sound. Article 4 of the Framework Directive provides that waste must be recycled or disposed of without causing harm to health and the environment and in particular "without risk to water, air, soil and plants and animals, without causing a nuisance through noise or odours, without adversely affecting the countryside or places of special interest." Article 4 provides also that member states must "take the necessary measures to prohibit the abandonment, dumping and uncontrolled disposal of waste." *Id.*

³² Art. 11(1), *id.*

³³ Art. 11(2), *id.*

³⁴ Art. 12, *id.*

³⁵ Art. 3(4), *id.*

explicitly provides that the principal goals of waste management are waste reduction and recycling.³⁶

Member states must establish an integrated and adequate network of disposal facilities that incorporates the best available technology not entailing excessive costs (BATNEEC).³⁷ The purpose of this network is to enable both the Community and individual states to implement the proximity and self-sufficiency principles. These principles are outlined in the directive in a flexible manner. Self-sufficiency must be compatible with “geographical circumstances or the need for specialized installations for certain types of wastes,” and the proximate facility must be “appropriate.”³⁸ These qualifications, however, cannot necessarily exclude a narrow interpretation of proximity and self-sufficiency principles. A narrow interpretation could severely undermine environmentally sound waste transfers within the Community and waste exports. The principles of proximity and self-sufficiency may be mutually exclusive also since not all national facilities are necessarily closer to the place of generation than facilities located in other states. In addition, the proximity principle cannot provide guidance in circumstances where many “appropriate” facilities exist, but those further away are simultaneously cheaper. The meaning of “appropriate” facility becomes clear only when specific standards for the management of facilities are available. Only recently, has the Commission adopted integrated legislation on waste incineration and land disposal.

The implementation of waste management legislation has encountered many obstacles. In 2002 the Commission initiated a number of actions against member states for the bad application of the Framework Directive. It is difficult to apply the directive in many of the existing installations of member states and complaints about illegal dumps, groundwater contamination, insufficient environmental impact assessments and inadequate

³⁶ Art. 3, *id.*

³⁷ Art. 5, *id.* Art. 6(1), 1991 hazardous waste amendment, *supra* note 13.

³⁸ According to the proximity principle, wastes must be disposed of in “one of the nearest appropriate installations, by means of most appropriate methods and technologies....” See art. 5, Framework Directive, *supra* note 13.

See also A Communication from the Commission, Community Strategy for Waste Management, *reprinted in* European Community Environmental Legislation 162 (EEC ed., 1992). The Communication was endorsed by the Council in a resolution of May 7, 1990 on waste policy, see Council Resolution of 7 May 1990 on waste policy, OJ C 122/2, 18.05.1990 (“Here ‘the nearest’ [facility] does not necessarily, in every case, mean close-by. To achieve the best possible distribution of installations, account must be taken of requirements and capacities for treatment. The distribution of plans for reception of domestic refuse, for example, cannot be the same as for installations for disposing of halogenic chemical waste.”).

waste planning are abound.³⁹ The Commission has taken action against member states for failure to transpose the Hazardous Waste Directive and failure to communicate to the Commission information about their disposal and recovery facilities.⁴⁰

2.2. Incineration and Landfill Legislation

Incineration Directive

The 1994 Hazardous Waste Incineration Directive⁴¹ and directives that dealt with municipal incinerators⁴² were replaced in 2000 by a directive that deals with the incineration of all wastes.⁴³ A single legal framework for the incineration of all waste seemed necessary to improve legal clarity and enforceability.⁴⁴ The directive applies to co-incineration plants like cement kilns and power plants and, for the first time, sets strict emission limits for furans and dioxins and limit values for wastewater.⁴⁵

The directive provides multiple requirements⁴⁶ for the operation of incinerators.⁴⁷ It provides that all incineration facilities must have permits in order to function legally.⁴⁸ Laborious requirements are provided also for the acceptance of wastes in incineration plants.⁴⁹ The purpose of the directive is to prevent or limit the negative effects on humans and the environment resulting from the emissions and discharges of incinerators into the air, water, groundwater and soil. This is to be accomplished by setting “stringent operational conditions” and establishing limit values for the emissions of incineration plants.⁵⁰ The detailed emission limit values

³⁹ Commission of the European Communities, Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 16, SEC (2003) 804, July 7, 2003 [hereinafter Survey on Enforcement].

⁴⁰ *Id.* at 17.

⁴¹ Council Directive 94/67 of 16 December 1994 on the incineration of hazardous waste, OJ L 365/34, 31.12.1994.

⁴² See Council Directive 89/369/EEC of 8 June 1989 on the prevention of air pollution from new municipal waste incineration plants, OJ L 163/32, 14.06.1989. See also Council Directive 89/429/EEC of 21 June 1989 on the reduction of air pollution from existing municipal waste incineration plants, OJ L 203/50, 15.07.1989.

⁴³ Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste, OJ L 332/91, 28.12.2000 [hereinafter Incineration Directive]. Preamble (22), *id.*

⁴⁴ Art. 11(2) & art. I, *id.*

⁴⁵ For the air pollution requirements of the incineration directive, see Chapter 4, Section 2.1.2.

⁴⁶ Art. 4, Incineration Directive, *supra* note 43.

⁴⁷ Art. 4, *id.*

⁴⁸ Art. 5, *id.*

⁴⁹ Art. 1, *id.*

and discharges are set in the Annexes to the directive.⁵¹ As it should have been expected the directive targets substances that are controlled by the international and EC air pollution management regime such as carbon monoxide, nitrogen oxide, sulphur and heavy metals.⁵²

Landfill Directive

The Directive for Landfill Disposal⁵³ provides certain basic standards for sound landfill management. These standards are similar to the standards mentioned in waste management literature and other countries' regulations. The purpose of the directive is to harmonize the technical standards for landfill disposal among states so that disparities do not exist that will cause the transfer of wastes to technically inferior and thus cheaper facilities.⁵⁴ The directive attempts to accomplish this through the establishment of a standard procedure for the acceptance of wastes in landfills and a standard classification of wastes that are to be accepted in landfills.⁵⁵ The directive classifies landfills into three categories: landfills for hazardous waste, landfills for non-hazardous waste and landfills for inert waste.⁵⁶

The objective of the directive is to achieve the goals of sound waste management by establishing "stringent operational and technical requirements" for landfill operation.⁵⁷ The directive provides that certain wastes will not be acceptable in landfills. Biodegradable wastes, for instance, are not to be accepted in landfills and states are called to adopt a strategy for the reduction of biodegradable wastes disposed of in landfills.⁵⁸ Other wastes that cannot be accepted in landfills include liquid wastes, wastes with explosive, corrosive, oxidizing and highly flammable properties, infectious wastes and wastes that do not meet certain criteria defined in detail in Annex II.⁵⁹ Annex II prescribes the waste acceptance criteria and procedures,⁶⁰ while Annex I sets out the general requirements

⁵¹ See arts. 7 & 8, *id.* See also Annex V and Annex IV, *id.*

⁵² Art. 11, *id.* See also Preamble (2) & (3) that refer explicitly to the protocols adopted by the international air pollution regime. *Id.*

⁵³ Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, OJ L 182/1, 16.07.1999.

⁵⁴ Preamble (10), *id.*

⁵⁵ Preamble (20), *id.*

⁵⁶ Art. 2(c)–(e), *id.*

⁵⁷ Art. 1(1), *id.*

⁵⁸ Art. 5(1) & (2), *id.*

⁵⁹ Art. 5(3), *id.*

⁶⁰ This Annex prescribes the general principles for the acceptance of wastes in various classes of landfills. The general principles for the acceptance of wastes in landfills have to do with the composition of waste, leachability and the long-term behavior of waste. Member states are supposed to draw lists of wastes that are to be accepted in specified classes of landfills.

that must be met by all classes of landfills. Such requirements include the protection of groundwater or any other type of water that may be affected by a landfill, water control and leachate management, protection of soil, and the management of accumulation and migration of landfill gas.

No landfill operation can function without a permit. The application for a permit must contain the identity of the applicant, the description of wastes to be deposited, the capacity of the disposal site, its hydrogeological and geological characteristics, the operation, monitoring and control plan and the plan for closure and after-closure.⁶¹ Member states cannot give a permit unless they are convinced that the operator is technically competent to manage the site and that all the requirements of the directive are met.⁶² The directive goes as far as to prescribe waste acceptance procedures,⁶³ control and monitoring procedures during the operational phase⁶⁴ and measures that must be taken during closure and after-closure.⁶⁵ The directive incorporates actively the polluter pays principle since it provides that all costs of caring for a landfill, including the costs of closure and after-closure, must be included in the price the operator charges for waste disposal.

Existing landfills are to comply with the provisions of the directive within eight years after its entry into force⁶⁶ and states are to report to the Commission on their national waste management strategies.⁶⁷ A Committee is established also to assist the Commission on the technical and scientific progress of waste management.⁶⁸

Specific procedures must be applied also to accept wastes in landfills. Such procedures include: basic characterization of waste, compliance testing and on-site verification. While on-site verification is mandatory, basic characterization and compliance testing are still optional. The Annex calls for the establishment of a European standard for sampling of waste (until such standard is developed the use of national standards is encouraged). *Id.*

⁶¹ Art. 7, *id.*

⁶² Art. 8, *id.* The permit must contain: the class of landfill; a list of wastes that are authorized to be deposited in the landfill; and the obligation of the applicant to report – at least annually – with regard to the types and quantities of wastes to be disposed of in the landfill and the results of the monitoring program. *See* art. 9, *id.*

⁶³ *See* art. 11, *id.* The operator of a landfill site must check the documentation provided, must visually inspect and keep a register of the quantities and the characteristics of waste deposited. The operator must acknowledge also in writing the receipt of each waste. If certain wastes are not accepted in a landfill the operator must notify the competent authority.

⁶⁴ Art. 12, *id.*

⁶⁵ Art. 13, *id.*

⁶⁶ *See also* art. 14, *id.*

⁶⁷ Art. 15, *id.* *See also* art. 5, *id.*

⁶⁸ Art. 16 & 17, *id.*

The Landfill Directive was to be transposed by July 16, 2001. By the end of 2002 several member states had not transposed the directive or, at least, had not communicated to the Commission their measures.⁶⁹

2.3. Special Wastes

In addition to general management requirements, the European Community has adopted legislation on specific wastes. Many directives are addressing specific volumes of wastes, for example the directives on batteries,⁷⁰ sewage sludge⁷¹ and end-of-life vehicles.⁷² Additional legislation is on the negotiating table, for instance, legislation on PVC waste⁷³ and on waste from electrical and electronic equipment.⁷⁴

Titanium Dioxide and PCB Directives

The 1978 Titanium Dioxide Directive⁷⁵ provided a flexible approach to titanium dioxide management.⁷⁶ It required states to develop and submit by July 1, 1980 programs setting targets, to be achieved by July 1, 1987, for the reduction and eventual elimination of titanium dioxide pollution.⁷⁷ The Commission had, in turn, to submit to the Council a proposal for the harmonization of these programs that would improve competition in the titanium dioxide industry.⁷⁸ The standards contained in the directive were

⁶⁹ See Survey on Enforcement, *supra* note 39, at 17.

⁷⁰ Commission Directive 93/86/EEC of 4 October 1993 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing certain dangerous substances, OJ L 264/51, 23.10.1993. See also Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances, OJ L 78/38, 26.03.1991.

⁷¹ Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture, OJ L 181/6, 04.07.1986.

⁷² See, e.g., Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life vehicles – Commission Statements, OJ L 269/34, 21.10.2000.

⁷³ The Commission is attempting to deal with the PVC problem by adopting a life-cycle perspective on PVC management. This includes an examination of the use of PVC products and the environmental impacts of PVCs and additives used in their production. The production of PVC waste is expected to increase about 80 percent for the next twenty years. See COM (2000) 469.

⁷⁴ This directive was eventually adopted in 2003, see Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE), OJ L 37/24, 13.02.2003.

⁷⁵ Council Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry, OJ L 54/19, 25.02.1978 [hereinafter 1978 Titanium Dioxide Directive].

⁷⁶ Titanium dioxide is used as a whitening agent in many items such as soap, paints, plastics and paper. While titanium dioxide is non-toxic, its by-products are. Titanium dioxide was introduced as a white pigment in paints so that lead pigments could be phased out.

⁷⁷ Art. 9(2), 1978 Titanium Dioxide Directive, *supra* note 75.

⁷⁸ Art. 9(3), *id.*

permissive. The producing state, disposing state and the state from whose territory the waste was to be dumped had to authorize the dumping.⁷⁹ Authorizations could be granted if certain conditions were satisfied⁸⁰ and the disposal was subject to monitoring.⁸¹

Despite the flexibility of the directive, member states failed to act.⁸² The inaction of member states prompted the adoption of more stringent legislation. Thus, the 1992 amendment of the directive⁸³ provides for stringent deadlines, specific limit values, quality objectives and prohibitions⁸⁴ attenuated with exceptions when it is economically and technically difficult for states to meet the deadlines.⁸⁵

The regulation of PCBs has had a similar evolution. While the 1976 Directive⁸⁶ merely encourages states to prohibit uncontrolled dumping⁸⁷ and promote recycling,⁸⁸ the 1996 Directive⁸⁹ ensures that the remaining PCBs⁹⁰ are disposed of properly and that PCB equipment is decontaminated and disposed of as soon as possible.⁹¹ For that purpose states are required to establish inventories of equipment contaminated with PCBs and to send the summaries of these inventories to the Commission three years after the entry into force of the directive.⁹² The recycling of PCBs is also prohibited⁹³ as well as their incineration in ships.⁹⁴ The decontami-

⁷⁹ Art. 4, *id.*

⁸⁰ Art. 5, *id.*

⁸¹ Art. 8, *id.*

⁸² For instance, Belgium was brought before the Court of Justice for failing to adopt relevant legislation. *See* Commission of the European Communities v. Kingdom of Belgium, Case 68/81, 1982 E.C.R. 154.

⁸³ *See* Council Directive 92/112/EEC of 15 December 1992 on procedures for harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium dioxide industry, OJ L 409/11, 31.12.1992 [hereinafter 1992 Titanium Dioxide Directive].

⁸⁴ It is provided, for instance, that the dumping of waste from ships and aircraft is prohibited. Arts. 5, 6, 7 & 9, 1992 Titanium Dioxide Directive, *supra* note 83.

⁸⁵ Council Directive 76/403/EEC of 6 April 1976 on the disposal of PBCs and PTCs, OJ L 108/41, 26.04.1976.

⁸⁶ Art. 2, *id.*

⁸⁷ Art. 5, *id.*

⁸⁸ A directive that deals decisively with PCB and PCT disposal has been debated since 1991. The directive was eventually adopted in 1996. *See* Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) OJ L 243/31, 24.09.1996.

⁸⁹ Art. 3, *id.*

⁹⁰ *Id.*

⁹¹ Art. 4, *id.*

⁹² Art. 5(1), *id.*

⁹³ Art. 7, *id.*

nation and disposal of PCBs is allowed only in appropriate licensed facilities.⁹⁵

The most interesting provision, from the perspective of this study, is found in the preamble. This provision demonstrates the difficulties that the Community has faced in dealing with the principles of self-sufficiency and proximity in waste management. The preamble of the directive states that many countries with no PCB disposal capacity face a *force majeure* situation and that the principle of proximity must be “interpreted in a flexible manner so as to permit European solidarity in this area.”⁹⁶

Indeed the implementation of the directive has encountered difficulties as many states have failed to communicate to the Commission their plans for decontamination and disposal of PCB contaminated equipment. In 2002 the Court ruled against several member states on this matter.⁹⁷

The Waste Oil Directive

The Waste Oil Directive⁹⁸ belongs to the old generation of Community directives. It is characterized by an absence of deadlines, detailed provisions and multi-paged annexes. Yet it is not devoid of substance. The directive attaches priority to recycling,⁹⁹ but specifies that waste oils that cannot be recycled must be burned.¹⁰⁰ Combustion cannot exceed certain emission limits¹⁰¹ and there are restrictions on the kind of waste oils that may be recycled. Incidents of pollution in certain member states¹⁰² caused

⁹⁵ Art. 8, *id.*

⁹⁶ Preamble (7), *id.*

⁹⁷ Survey on Enforcement, *supra* note 39, at 17-18.

⁹⁸ Council Directive 75/439 of 16 June 1975 on the disposal of waste oils, OJ L 194/23, 25.07.1975. The directive was amended. *See* Council Directive 87/101/EEC of 22 December 1986 amending Directive 75/439/EEC on the disposal of waste oils, OJ L 42/43, 12.02.1987 [hereinafter Waste Oil Directive]. The Directive was further amended by Council Directive 91/692/EEC of 23 December 1991 standardizing and rationalizing reports on the implementation of certain Directives relating to the environment, OJ L 377/48, 31.12.1991.

⁹⁹ Art. 3(1), Waste Oil Directive, *id.*

¹⁰⁰ Art. 3(2), *id.*

¹⁰¹ Article 8(1)(a) provides specific emission limits for plants with a thermal input of 3 MW or more. Article 8(1)(b) provides that combustion in plants with a thermal input of less than 3 MW must be subject to adequate control. *Id.*

¹⁰² For example, in Germany the waste oil definition was very broad and included mixtures that contained four percent of oil regardless of the nature of other contaminants. As a result, PCBs were not removed in the refining process and the regenerated lubricants still contained quantities of PCBs. The public outcry against pollution caused by waste oils containing PCBs was stirred by the bankruptcy of a waste oil recycling firm that left behind its PCB contaminated facilities to be cleaned up by the government. *See* Bruce W. Piasecki & Gary A. Davis, *Restructuring Toxic Waste Controls: Intrinsic Difficulties and Historical Trends*,

by waste oils containing PCBs prompted the adoption of bans on recycling of waste oils, if the recycled oils contain PCBs.¹⁰³ If waste oils cannot be burned or recycled, they must be destroyed, stored or disposed of safely. States must ensure that collection and disposal facilities carry out their activities in areas designated by competent authorities.¹⁰⁴ Based on this provision, France adopted a system under which the country was divided into districts and each district was assigned to one collector. It was hoped that the so-created monopolies, and ensuing economic benefits for collectors, would encourage responsible collection and treatment.

The French legislation was referred repeatedly to the Court of Justice for preliminary rulings. Through preliminary references French courts sought to clarify whether monopolies for domestic waste collectors were detrimental to intra-Community trade and the free movement of goods. The Court of Justice in *Inter-Huiles*¹⁰⁵ ruled against the French legislation, arguing that “an efficient and coherent system of treatment for waste oils”¹⁰⁶ must not create barriers to intra-Community trade and must not harm competition. The Court stated that exclusive rights for collection and disposal facilities within a zone must not necessarily lead to waste export prohibitions.¹⁰⁷ The French argument that monopolies and export prohibitions provided incentives for sound waste management – since they guaranteed profitability for collectors – was rejected by the Court. The Court pointed out that the directive contemplated zoning only as a measure of last resort, and that states could use financial indemnities to ensure the viability of waste oil collectors or disposers.¹⁰⁸ Under the directive, states may grant indemnities to collection and disposal facilities.¹⁰⁹ The indemnities may be financed, according to the polluter pays principle, by a charge imposed on the producers of products that become waste oils after they are used, and must not distort competition.¹¹⁰

in *America's Future in Toxic Waste Management: Lessons from Europe* 1 (Bruce W. Piasecki & Gary A. Davis eds., 1987).

¹⁰³ Arts. 10(3) & 7, Waste Oil Directive, *supra* note 98.

¹⁰⁴ Art. 5(2), *id.*

¹⁰⁵ Syndicat National des Fabricants Raffineurs d' Huile de Graissage and Others v. Groupement d' Intérêt Economique “Inter-Huiles,” and Others,” Case 172/82, 1983 E.C.R. 555. Subsequent decisions on the same matter followed the precedent of *Inter-Huiles*. See Commission of European Communities v. French Republic, Case 173/83, 1985 E.C.R. 491; Groupement d' Intérêt Economique “Phônes Alpes Huiles” and Others v. Syndicat National des Fabricants Raffineurs d' Huile de Graissage and Others, Case 295/82, 1984 E.C.R. 575.

¹⁰⁶ Preamble, Waste Oil Directive, *supra* note 98.

¹⁰⁷ *Inter-Huiles*, *supra* note 105.

¹⁰⁸ *Id.* at 566.

¹⁰⁹ Art. 14, Waste Oil Directive, *supra* note 98.

¹¹⁰ Art. 15, *id.*

The indemnities provision came before the Court in *Procureur de la République v. Association des Brûleurs d'Huiles Usagées*.¹¹¹ The Court ruled that the indemnities provision *per se* did not jeopardize free trade since it was explicitly provided in the Waste Oil Directive that subsidizing waste oil disposal did not distort competition.¹¹² With respect to the French zoning requirement, the Court followed the precedent of *Inter-Huiles*.¹¹³ The Court held *in dicta* that free trade must not be viewed in absolute terms, and that it must be subject to limits “justified by the objectives of general interest pursued by the Community” as long as these objectives do not substantially impair free trade.¹¹⁴

The Waste Oil Directive has remained controversial. In 2001 the Commission opened infringement proceedings against eleven states for non-conformity and/or bad application. Articles of the directive that states seem resistant to apply include the article that encourages states to regenerate their waste oils provided that this is technically and economically feasible. The Commission is holding infringement proceedings against France, Belgium, Ireland, the Netherlands, Finland, Denmark, Sweden, Austria, Greece, the U.K. and Portugal.¹¹⁵

2.4. Packaging Waste

The directive on packaging wastes,¹¹⁶ which is the legislative outcome of the *Danish Bottle* case¹¹⁷ covers all packaging waste regardless of its use (thus industrial, office, shop, service and household waste packaging are covered) and regardless of the material used. The purpose of the directive is to prevent the production of packaging waste and, if that is not possible, to encourage at least the reuse, recycling, and recovery of waste in a harmonized way all through the Community.¹¹⁸ The directive sets specific targets for the reduction of packaging.¹¹⁹ Annex II of the directive provides the essential requirements on the composition of packaging that states

¹¹¹ Case 240/83, 1985 E.C.R. 531.

¹¹² *Id.* at 550.

¹¹³ See *supra* note 105.

¹¹⁴ *Id.* at 549.

¹¹⁵ Survey on Enforcement, *supra* note 39, at 17.

¹¹⁶ Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, OJ L 365/10, 31.12.1994 [Packaging Waste Directive].

¹¹⁷ See *Commission of the European Communities v. Kingdom of Belgium (Danish Bottle Case)*, Case 302/86, 1988 E.C.R. 4607.

¹¹⁸ Art. 1, Packaging Waste Directive, *supra* note 116.

¹¹⁹ Art. 6(1)(a) & (b), *id.* A 50 percent as minimum and 65 percent as maximum by weight of the packaging waste must be recovered. A 25 percent as minimum and 45 percent as maximum by weight of packaging material should be recycled, with a minimum of 15 percent by weight for each packaging material.

must adopt. Annex I provides the essential elements of a packaging identification system.

The directive provides that the Council must establish, within two years after the entry into force of the directive, a marking system for packaging in order to facilitate reuse and recycling by the industry.¹²⁰ In 1997 the Commission established an identification system for packaging material¹²¹ and the formats of a database system that states are to use.¹²²

It is interesting to note that the directive does not contain any of the controversial provisions proposed by the DG Environment and supported by the Parliament. It is, instead, a reflection of the lowest common denominator approach that characterizes occasionally EC environmental legislation.¹²³ Despite or because of that, the Packaging Directive has been successful. One third of the packaging material for soft drinks, mineral water and wine is reused. Recycling, though, is more developed in the northern European states than in the southern European states. The Commission is now prepared to set even more aggressive targets that must be met by June 2006 (with exceptions for Greece, Portugal and Ireland that must meet the targets by 2009).¹²⁴

3. RADIOACTIVE WASTE MANAGEMENT

The surprising element about the Community's radioactive waste management rules is that they are less stringent than the hazardous waste rules despite the fact that radioactive waste can present even greater threats than hazardous waste. The lack of stringent standards can be attributed to the fact that the Community, like most states, is not entirely clear and confident on what to do with radioactive wastes.¹²⁵

¹²⁰ Art. 8, *id.*

¹²¹ Commission Decision 97/129/EC of 28 January 1997 establishing the identification system for packaging materials pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste, OJ L 50/28, 20.02.1997.

¹²² Article 12 provides that member states must take the necessary measures to ensure that databases on packaging and packaging waste are established. The Commission further elaborated on the database requirement in Commission Decision 97/138/EC of 3 February 1997 establishing the formats relating to the database system pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste, OJ L 52/22, 22.02.1997.

¹²³ See Jonathan Golub, *State Power and Institutional Influence in European Integration: Lessons from the Packaging Waste Directive*, in *Environmental Policy in the European Union: Actors, Institutions and Processes* 217, 235 (Andrew Jordan ed., 2002).

¹²⁴ See COM(2001) 729 final.

¹²⁵ See Louka, *supra* note 5, at 75.

The Community established the first action plan for the management of radioactive wastes in 1980. This 1980-1992 plan included provisions for a continuous analysis of the situation with regard to the management of radioactive wastes, consultation on the practices of sound radioactive waste management and research and development.

The plan that covers the period between 1992-1999 encourages states to cooperate in developing a common approach towards the harmonization of waste management strategies and practices. It encourages also cooperation with third countries that produce radioactive waste, especially countries of the Central and Eastern Europe. Cooperation includes the provision of lists of storage installations that states intend to construct and put into service and a list of management practices and strategies. A 1992 resolution provides a preliminary system for radioactive waste classification. According to this system, wastes are classified as: transition radioactive waste (mainly of medical origin); low- and intermediate-level waste and high-level radioactive waste.¹²⁶

All states produce, at least, some amounts of radioactive waste but the quantities produced in certain states do not warrant the development of specialized radioactive waste disposal facilities. Countries with no nuclear power production have abandoned their plans to seek permanent disposal for their radioactive waste while countries that produce nuclear power (for instance, the Netherlands, Italy and the U.K.) have postponed their plans for at least fifty years or for more than a hundred years. The Commission has recommended that countries should continue their efforts to find suitable permanent repositories for radioactive waste and that common rules should be set for the decontamination of radioactive material. The Commission has proposed that the Community must strive for self-sufficiency in radioactive waste management but that the transfer of wastes outside the European Union should not be excluded.¹²⁷ The Community is adopting, thus, a more relaxed approach to the transfer of radioactive waste than to the transfer of hazardous waste. The difficulties involved in finding appropriate radioactive waste disposal sites has led the Community to adopt a more *laissez-faire* attitude with regard to radioactive waste transfers.

¹²⁶ Council Resolution of 15 June 1992 on the renewal of the Community Plan of Action in the field of radioactive waste OJ C 158/3, 25.06.1992.

¹²⁷ Communication and fourth report from the Commission of 11 January 1999 on the present situation and prospects for radioactive waste management in the European Union, COM (98) 799 Final.

The accession of Eastern European countries – most of which have nuclear facilities that need to be decommissioned – brings to the fore the issue of nuclear waste management with a new urgency. In 2003 the Commission tried to address the issue of radioactive waste management by proposing two new directives: a Directive on the Safety of Nuclear Installations¹²⁸ and a Directive on the Management of Spent Fuel and Radioactive Waste.¹²⁹ It is interesting to note the emphasis placed on “sharing facilities and services wherever possible” for the disposal of nuclear waste¹³⁰ and on the desirability of regional repositories¹³¹ that are ruled out constantly because they are politically infeasible – the NIMBY syndrome reigning powerful again.

4. CROSS-BORDER WASTE MOVEMENTS: A FRAGMENTED PROCESS

The attempt to comprehensively manage hazardous waste is undermined by a waste transfer regime that favors the principles of self-sufficiency and proximity, principles that should have no place within the Community. Instead of emphasizing the principle of self-sufficiency, the Community should have fostered the principle of solidarity through the development of waste management networks that favor the most efficient and less polluting waste management methods.

Proximity and self-sufficiency, if interpreted strictly and without regard to efficiency and effectiveness, could generate significant inefficiencies and the multiplication of waste management facilities. The principle of solidarity, on the contrary, mandates that states should help each other by sharing facilities for waste treatment/disposal and by encouraging waste transfers when this seems to be the most efficient and effective option.

4.1. *The International Regime for Waste Transfers*

The creation of an international regime for the regulation of transnational waste shipments was a response to a wave of waste exports from developed countries to developing countries. Such waste transfers were totally unregulated and, as a result, hazardous waste was dumped in inadequate

¹²⁸ Proposal for a Council (Euratom) Directive setting out basic obligations and general principles on the safety of nuclear installations, COM (2003) 32 final, Jan. 30, 2003.

¹²⁹ Proposal for a Council (Euratom) Directive on the management of spent nuclear fuel and radioactive waste, COM (2003) 32 final, Jan. 30, 2003.

¹³⁰ *Id.*

¹³¹ From a strictly environmental viewpoint, a small number of repositories facilitates monitoring and it is likely to contain the environmental impact.

developing countries' facilities creating thus potential environment hazards. The impetus for such waste transfers was given by a number of strict regulations in developed countries that made the disposal of wastes in these countries economically prohibitive and exports of wastes to the developing world – which had yet to enforce strict environmental standards – attractive.¹³² Such transfers of waste to economically disadvantaged countries continue till today.¹³³

The Basel Convention¹³⁴ was the first international instrument to regulate waste movements. The convention has established the principle of prior notification and informed consent. Parties to the convention cannot transfer wastes unless they notify the importing country and receive in writing the consent of such country.¹³⁵ The convention establishes the principles of sound waste management that include waste reduction, self-sufficiency in waste management and proximity – that is disposal of wastes as close as possible to the country of generation.¹³⁶

But there was soon to be a backlash against the Basel Convention. African countries felt that the Basel Convention was too weak of an instrument and incapable of curbing hazardous waste exports to their territory. Soon after the adoption of the Basel Convention, they adopted the Bamako Convention,¹³⁷ which bans the imports of hazardous wastes into the African region (intra-regional trade is allowed, though, based on the prior

¹³² For the number and nature of incidents that gave the impetus for the adoption of the Basel Convention, see Louka, *supra* note 5, at 103.

¹³³ See Greenpeace Denounces Toxic PVC-Waste Plans in Goa, Greenpeace Toxics Press Releases, May 4, 2000. See also Greenpeace Intercepts European Ship Attempting to Illegally Dump Toxic Waste in Turkey, Greenpeace Toxics Press Releases, May 4, 2002; Greenpeace Returns Toxics Waste Dumped by Italy Back to Sender, Greenpeace Toxics Press Releases, Feb. 25, 2002; See also Western European Companies Dump Toxic Ships on Turkish Beach: Greenpeace holds EU Partially Responsible for Poisoning, Greenpeace Toxics Press Release, Jan. 14, 2002.

¹³⁴ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Mar. 22, 1989, *reprinted in* 28 I.L.M. 649 (1989).

¹³⁵ Arts. 4 & 6, *id.*

¹³⁶ Other requirements for the legal transfers of wastes include: a contract between the exporter and the disposer specifying the environmentally sound management of waste as well as financial guarantees such as insurance or a bond as they may be required by the state of import and/or transit state. The purpose of financial guarantees is to provide for immediate funds in case the shipment and disposal cannot be carried out as initially intended. For more details on the Basel Convention, see Louka, *supra* note 5, at 45.

¹³⁷ Bamako Convention on Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, Jan. 29, 1991, *reprinted in* 30 I.L.M. 773 (1991). For more details on the Bamako Convention, see *id.* at 51.

notification and informed consent procedure). Other regions of the world have adopted similar instruments.¹³⁸

Eventually, even under the framework of the Basel Convention, it was decided that the principle of prior notification and informed consent could not curb waste movements and that a system that bans waste transfers to developing countries was necessary. In 1995, with a new article 4A – the export ban amendment – the parties to the Basel Convention decided to prohibit the exports of hazardous wastes for final disposal.¹³⁹ State parties decided also to phase out and prohibit by December 31, 1997 any exports of wastes destined for recovery operations from Annex VII countries to all other countries.¹⁴⁰ Annex VII includes all OECD countries, the European Community and Liechtenstein. This decision of the parties to the Basel Convention has been incorporated into the Community legislation.¹⁴¹

The Basel Convention was further amended in 1998 with the adoption of detailed lists of wastes in Annexes VIII and IX. While Annex VIII contains wastes that are subject to the controls of the convention,¹⁴² Annex IX contains wastes that are not considered hazardous – probably destined for recycling operations – and therefore not subject to the requirements of convention.¹⁴³ This list of wastes not subject to controls has created

¹³⁸ See Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region, (Waigani Convention), Sept. 16, 1995. For a detailed account and analysis of the instruments related to the Basel Convention, see Katarina Kummer, *International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules* (1995).

¹³⁹ See Katarina Kummer, *The Basel Convention: Ten Years On*, 7 *Review of the European Community & International Environmental Law* 227 (1998).

¹⁴⁰ The ban amendment to the Basel Convention has yet to enter into force. As of October 3, 2003 only 37 countries have ratified the amendment. Sixty-two ratifications are needed for the amendment to enter into force.

¹⁴¹ See Council Decision 97/640/EC of 22 September 1997 on approval, on behalf of the Community, of the amendment to the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basle Convention), as laid down in Decision III/1 of the Conference of the Parties, OJ L 272/45, 04.10.1997.

¹⁴² Annex VIII (list A) wastes are subject to the controls of the convention but their designation as hazardous should not prevent the use of Annex III to demonstrate that they are non-hazardous. Annex III provides a list of characteristics of hazardous wastes (e.g. toxicity, flammability etc), see Basel Convention, *supra* note 134.

¹⁴³ Annex XI (list B) wastes are not considered hazardous unless they contain Annex I material causing them to exhibit the characteristics listed in Annex III. Wastes that contain material listed under Annex I are considered hazardous wastes and are strictly regulated under the convention. See generally Guide to the Basel Convention Control System for Hazardous Waste adopted by the Fourth Meeting of the Conference of the Parties, Feb. 1998 available online <http://www.basel.int/pub/instruct.html>.

concerns that it would be taken advantage of to facilitate prohibited waste movements under the pretext of recycling. Despite the possibility of creating a possible loophole in the Basel regime, though, the addition of a list of wastes that are innocuous, unless proven otherwise, would help revitalize the recycling industry and it is a welcomed addition to the regime of the convention.

The concern of unnecessarily suffocating the recycling industry by a too prohibitive and bureaucratic regime propelled the OECD member countries to adopt more flexible requirements for waste transfers destined for recycling operations. A 1992 OECD Decision¹⁴⁴ classified wastes under three lists:¹⁴⁵

- the green list – wastes can be transferred like any other good;
- the amber list – wastes are subject to notification and consent but consent may be implied;
- and the red list – waste transfers require always the written concern of the importing country.¹⁴⁶

Given the 1998 amendments to the Basel Convention, the OECD decided to adopt the lists of wastes established under the Basel Convention and to get rid of the red list transfer procedure. According to the new Decision,¹⁴⁷ wastes are classified under two control systems: the green list control system and the amber list control system. Wastes on the green list (that coincides with Annex XI of the Basel Convention) can be exported without particular restrictions except for those applied to the usual transfers of commercial goods. Wastes on the amber list (Annex II and Annex VIII of the Basel Convention) can be transferred only after the written or tacit consent of the importing country. An abbreviated procedure is provided for wastes destined for pre-consented facilities (these are facilities pre-specified to receive recyclable wastes and are known as such to both importing and exporting parties).¹⁴⁸

¹⁴⁴ OECD Decision C(92)39/Final on the Control of the Transboundary Movements of Wastes Destined for Recovery Operations, April 6, 1992.

¹⁴⁵ The Decision was based on a system of classification of wastes known as the International Waste Identification Code (IWIC). The system was abandoned in the 2001 Decision, *see infra* note 147, in favor of the classification system adopted under the Basel Convention.

¹⁴⁶ For more details on this decision, *see* Louka, *supra* note 5, at 58.

¹⁴⁷ Decision of the Council Concerning the Revision of Decision C(92)39/Final on the Control of Transboundary Movements of Wastes Destined for Recovery Operations, C(2001)107/Final, May 21, 2002.

¹⁴⁸ For the repercussions of the 2001 Decision, *see* OECD Working Group on Waste Prevention and Recycling Guidance, Manual for the Implementation of the OECD Decision C(2001)107/Final, ENV/EPOC/WGWPR(2001)6/FINAL, Oct. 17, 2002.

OECD's dispensing of the red list procedure means that *written* consent is no longer a requirement even for potentially quite hazardous wastes such as PCBs, PCTs and asbestos that were previously controlled under the red list procedure. It is not surprising that the simplification of the OECD procedures has created consternation in environmental groups that deplore the 2001 OECD Decision as an attempt to dampen the requirements of the Basel Convention.¹⁴⁹ The jurisdictional coverage of OECD decisions, though, does not expand to the politically charged waste transfers – waste transfers to developing countries. OECD decisions apply only to wastes transferred from OECD countries to other OECD countries.

From the perspective supported here, it is interesting to note that despite the existence of a prohibitory regime, efforts are made in different fora – even under the forum of the Basel Convention – to relax the unnecessary and cumbersome requirements that could suffocate the development of a nascent recycling industry.

4.2. Waste Trade versus Environmental Protection

The Wallonia Decision

Prior to 1993 waste movements were regulated by a 1984/86 directive,¹⁵⁰ a precursor to the Basel Convention that established the system of notification and informed consent for waste movements. The European Court of Justice interpreted this directive before it was replaced by a 1993 Regulation.¹⁵¹ The case before the Court, *Commission v. Belgium*,¹⁵² concerned Wallonia's waste import prohibition from other member states and regions of Belgium. The import prohibition affected both solid and hazardous wastes.

The Court of Justice distinguished between hazardous and solid wastes. Regarding hazardous wastes, the Court followed the opinion of the advocate general but not in its entirety. The advocate general did not

¹⁴⁹ Basel Action Network (BAN) & European Environmental Bureau (EEB), Comments on the Review and Revision of the European Union Waste Shipment Regulation, Nov. 2001.

¹⁵⁰ Council Directive 84/631/EEC of 6 December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste, OJ L 326/31, 13.12.1984. The directive was amended by a 1986 directive. See Council Directive 86/279/EEC of 12 June 1986 amending Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste, OJ L 181/13, 04.07.1986.

¹⁵¹ See *infra* Section 4.3.

¹⁵² Commission of the European Communities v. Kingdom of Belgium (Wallonia Case), Case C-20/90, 1992 E.C.R. I-4431.

distinguish between dangerous and other wastes. The advocate general maintained that Belgium violated article 30 (today article 28) of the EC Treaty¹⁵³ since wastes are goods for a “substantial industry.”¹⁵⁴ Wastes are goods even if they have negative value – that is the owner is willing to pay to get rid of them – as long as they can be priced.¹⁵⁵ The advocate general rejected the argument that article 36 (today article 30)¹⁵⁶ applied to the particular case because an *a priori* ban on waste imports is not a proportionate response to avert harm to public health that may be caused by wastes.¹⁵⁷ He argued that the proximity and self-sufficiency principles embodied in the Basel Convention were compatible with the free movements of goods only if they are applied at the Community level rather than at the national level.¹⁵⁸

The advocate general maintained also that unilateral prohibitions are at odds with the notion of an integrated network of disposal facilities mandated by the 1991 Framework Directive since prohibitions may hinder disposal at the “nearest appropriate installation.” He claimed that self-sufficiency at the Community and national levels should be interpreted in a manner compatible with articles 30 and 36 (today articles 28 and 30).¹⁵⁹ Self-sufficiency must not authorize bans or other quantitative restrictions and it must be viewed, instead, as a means to reduce wastes and reliance on waste exports. This interpretation of self-sufficiency is suggested, according to the advocate general, by the qualifications to the principle which allow member states to take into account “geographical circumstances” and “the need for specialized installations”.¹⁶⁰

The Court held that member states could not impose total bans on hazardous waste shipments because the 1984/86 Directive established a procedure – prior notification and informed consent – that governs hazardous waste movements.

¹⁵³ Treaty Establishing the European Economic Community (EEC Treaty or Treaty of Rome), March 25, 1957, *reprinted in* 298 U.N.T.S. 3. For an updated version of the EC Treaty as amended by the Amsterdam and Nice Treaties, *see* the official site of the European Communities available online <http://europa.eu.int/eur-lex>Treaties> [hereinafter EC Treaty].

¹⁵⁴ *See* Opinion Mr. Advocate General Jacobs delivered on 29 January 1992, Commission of the European Communities v. Kingdom of Belgium, Case C-2/90, 1992 E.C.R. I-4431 [hereinafter Opinion].

¹⁵⁵ *Id.*

¹⁵⁶ EC Treaty, *supra* note 153.

¹⁵⁷ Opinion, *supra* note 154.

¹⁵⁸ *Id.*

¹⁵⁹ EC Treaty, *supra* note 153.

¹⁶⁰ Opinion, *supra* note 154.

With respect to solid wastes the Court admitted that wastes are goods and that article 30 of the treaty (today article 28)¹⁶¹ – which prohibits quantitative restrictions on the imports of goods – must apply to waste imports also. The Court, however, conceded that wastes, because of their effects on the environment, are commodities of atypical nature. The Court took into account the massive influx of wastes into Wallonia and concluded that such an influx constitutes a real danger to the environment because of the limited capacities of Wallonia.

The Court rejected the Commission's argument that other states' wastes were not more harmful than Wallonia's own and that, consequently, the Belgian legislation had discriminated against out-of-Belgium waste. The Court relied on article 130R(2) (today article 174) of the EC Treaty¹⁶² that provides that Community environmental action must be based on the principle that environmental damage should as a priority be corrected at the source. The Court argued that this provision implied that wastes should be eliminated as close as possible to the place of their production. In support of this argument the Court cited the Basel Convention signed by the Community, and upheld the Belgian import prohibition of solid wastes.

Comparative Analysis of US Supreme Court and Court of Justice Decisions

The United States, similarly with the European Union, is plagued by a large waste production that has intensified interstate waste transfers despite a strong NIMBY syndrome prevalent all over the country. State bans on waste transfers have been challenged often in front of the Supreme Court as unconstitutional – a violation of the commerce clause¹⁶³ of the constitution the purpose of which is to free trade among the states of the American Union. The United States Supreme Court has usually struck down bans on interstate waste transfers as an unjustifiable restriction on trade.¹⁶⁴ The Court has held invariably that the protection of human health and the environment does not justify discrimination against articles of commerce coming from another state simply because of their origin.¹⁶⁵

A cursory analysis of the decisions of the European Court of Justice and the United States Supreme Court that deal with interstate waste shipments

¹⁶¹ EC Treaty, *supra* note 153.

¹⁶² *Id.*

¹⁶³ *See* Louka, *supra* note 5, at 136, n. 232.

¹⁶⁴ *See, e.g.,* City of Philadelphia v. New Jersey, 437 U.S. 617 (1982); National Solid Wastes Management Association v. Alabama, 910 F. 2d 713 (11th Cir. 1990).

¹⁶⁵ Louka, *supra* note 5, at 136.

would characterize them as diametrically opposite. The Supreme Court has rejected prohibitory and restrictive regulations of interstate waste transfers as inconsistent with the commerce clause of the Constitution. The Court of Justice has upheld prohibitions and restrictions because of the *sui generis* nature of waste and its effects on the environment.

An attempt to comprehend the divergent judicial conclusions could start in their constitutional references. Environmental protection is explicitly mentioned in the European constitutional treaties, as a subject matter of Community policy, but not in the United States constitution. Therefore, an argument could be advanced that the Court of Justice feels more compelled to balance environmental and free trade considerations than the Supreme Court. Such an interpretation could be plausible, but it should be rejected as too textual: the United States constitution has been interpreted to provide Congress with powers far in excess of those explicitly enumerated in it.¹⁶⁶

Interpreting the commerce clause, the Supreme Court has held that if Congress has not exercised its authority to regulate commerce, state or local trade regulations enacted, instead, will survive judicial scrutiny under the following condition:

regulations are not facially discriminatory against other states' products and processes, or they do not impose excessive burdens on interstate trade compared with the local benefits achieved.¹⁶⁷ The Court of Justice has applied a similar test. Trade restrictions may be struck down either because they raise quantitative barriers or because they are unjustifiable for the pursuit of legitimate national goals.¹⁶⁸

In the area of waste management, the United States Congress has not regulated interstate waste trade and the Supreme Court could conclude – as it did – that prohibitory regulations are facially discriminatory against out-of-state wastes. The European Council, though, has regulated hazardous waste trade with the prior notification and informed consent

¹⁶⁶ See Francis Jacobs & Kenneth L. Karst, *The "Federal" Legal Order: The U.S.A. and Europe Compared: A Juridical Perspective*, in 1 *Integration Through Law: Europe and the American Federal Experience* 169, 173 (Mauro Cappelletti et al., eds., 1986).

¹⁶⁷ The Court applied the *Pike* test: "Where a statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits." See *Pike v. Bruce Church*, 397 U.S. 137 (1970).

¹⁶⁸ See art. 36 (today article 30). See also *Rewe-Zentrale AG v. Bundesmonopolverwaltung für Branntwein* (Cassis de Dijon Case), Case 120/78, 1979 E.C.R. 649; *Commission of the European Communities v. Kingdom of Belgium* (Danish Bottle Case), Case 302/86, 1988 E.C.R. 4607; *Inter-Huiles and Huiles Usagées*, *supra* notes 105 & 111.

procedure; thus, the Court of Justice justifiably, in the *Wallonia* case,¹⁶⁹ upheld Community legislation over a member state's legislation. Therefore, despite their apparent divergence, and from a federal perspective,¹⁷⁰ the two Courts' decisions coincide. The Court of Justice continued its self-defined mandate to foster European integration.¹⁷¹ In this spirit, in the *Wallonia* case, it upheld Community hazardous waste legislation over a national regulation that violated it.

The Court, by relying on the environmental rather than the free trade provisions of the treaty, sought to strengthen the Community's competence in matters other than free trade. In a perfect union, decisions do not have to revolve always around free trade considerations. There are other issues, such as environmental protection or broader goals, such as integration, that compete for attention. This is particularly so if it is unclear which specific industries or companies are affected by the environmental legislation. The effects of legislation on free trade, therefore, cannot be detected easily. The *Wallonia* case was devoid of express references to specific industries/companies harmed by the Belgian import ban, except for the Commission's vague claim that the Belgian legislation raised quantitative barriers to waste trade.¹⁷² The *Danish Bottle*¹⁷³ and *Huiles Usagées*¹⁷⁴ cases, on the contrary, were explicit about the specific business interests hampered by environmental legislation. In those cases,

¹⁶⁹ See *supra* note 152.

¹⁷⁰ There are certainly many federal perspectives. See generally *Integration Through Law*, *supra* note 166. In the Community where the center is weak and member states are strong, the Court of Justice has strived to strengthen the center.

¹⁷¹ For the unifying role that the Court has played in the process of European integration, see Joseph Weiler, *The Transformation of Europe*, 100 *Yale Law Journal* 403 (1991). See also G. Frederico Mancini, *The Making of a Constitution for Europe*, 26 *Common Market Law Review* 595 (1989). For a critique of the Court's jurisprudence, see Hjalte Rasmussen, *On Law and Policy in the European Court of Justice* (1986). But see also Joseph Weiler, *The Court of Justice on Trial* (Review Essay), 24 *Common Market Law Review* 555 (1987) (reviewing H. Rasmussen *supra*).

¹⁷² In the *Wallonia* case, *supra* note 152, the Commission acted after receiving a complaint. Neither the Court opinion nor the oral proceedings identify which specific industry or industries were harmed by the Belgian ban.

¹⁷³ The *Danish Bottle* case dealt with Denmark's recycling system for beer and soft drink containers. The Court held that a compulsory deposit-and-return system for the re-use of containers was not disproportionate for the achievement of environmental protection. The Court struck down a requirement, though, that only containers approved by the Danish environmental agency could be used as disproportionate for attaining environmental protection. The Commission brought Denmark before the Court after receiving protests from producers of beverages and containers in other member states and from European associations representing the retail trade, and this is mentioned in the Court decision. See *Danish Bottle Case*, *supra* note 117.

¹⁷⁴ See *supra* note 111.

the Court was notably reluctant to unqualifiedly bow to environmental considerations incompatible with free trade.

The reference to the Basel Convention in the *Wallonia* decision is similarly explainable. Granting legal bearing to the convention, which at that time was signed but not yet ratified by the Community, was a sagacious judicial technique to affirm Community's treaty-making competence in areas other than the common commercial policy¹⁷⁵ or association agreements.¹⁷⁶ International treaties are negotiated and signed by the Commission and ratified by the Council. By according importance to the signature of the convention by the Commission, which does not have to lead to ratification by the Council, the Court enhanced the Community's treaty-making authority, and especially treaty-making authority on environmental protection.

Appraised in this light, the purpose of the Court of Justice decisions is to enhance the Community's legislative and treaty-making competence, and thus to strengthen, not to fragment European integration. The same purpose is prevalent in the Supreme Court decisions that emphasize the notion of nationhood and interdependence among the states of the American federation. Since the United States, however, is a more mature union than the Community, the Court of Justice and the Supreme Court are not guided by the same considerations. In the Community, where environmental legislation was based mostly on an article regarding free trade, the Court of Justice felt compelled to clarify that, when a specific industry is not harmed, abstract free trade considerations should concede to specific Community environmental legislation.

Invoking the principles of proximity and self-sufficiency in the *Wallonia* case has not committed the Court to an unqualified application of the principles in future cases. When issues affecting specific industry interests reach the Court through preliminary references, the Court must be able to read expansively the self-sufficiency and proximity principles to include trans-European and transnational waste management considerations. Such issues will arise when domestic prohibitions or restrictions prevent a specific industry/company from exporting or importing wastes.

The formulation of self-sufficiency and proximity principles is not as rigid as to exclude other considerations. The 1991 Framework Directive

¹⁷⁵ Art. 133, EC Treaty, *supra* note 153.

¹⁷⁶ See art. 310, *id.* Expanding the treaty-making authority of the Community has been the objective of the Court since the early years of the Community. See, e.g., T. C. Hartley, *The Foundations of European Community Law* 145-65 (1981).

provides that the “nearest” installation must be “appropriate,” and that the integrated network of facilities must take into account the “best available technologies not involving excessive costs,” “geographical circumstances” or “the need for specialized installations for certain types of wastes.”¹⁷⁷ The 1993 Waste Transfer Regulation refers to these qualified principles.¹⁷⁸ The Court of Justice must be able to construe these principles, as it has done always, teleologically, and within the spirit of the treaties that the Court has interpreted to be a Europe without frontiers.

4.3. EC Regulation on Transboundary Waste Movements

The 1984/86 directive, upon which the *Wallonia* decision is based, has been replaced by a detailed regulation.¹⁷⁹ The regulation affirms the importance of proximity and self-sufficiency principles both at the Community and national levels. It prescribes a considerably more specific notification procedure, and allows for prohibitions and restrictions on waste movements. For example, it bans waste exports from the Community to African, Caribbean and Pacific (ACP) countries regardless of the waste management method used.¹⁸⁰

The adoption of the regulation was a triumph for the French policy. France, a target of illegal waste traffickers, advocated provisions that legitimize waste import bans even within the Community borders.

The regulation has caused turmoil especially in the recycling industry that maintains that the regulation will harm international trade in recyclable materials. The industry has expressed concerns mainly because the regulation is not based on the pro-trade 100A,¹⁸¹ but on 130S¹⁸² dealing exclusively with the environment. The Council decided to employ article 130S¹⁸³ so as to elicit a judicial interpretation upholding the prohibitions and restrictions included in the regulation. Upholding bans and restrictions would have been difficult, if the regulation was based on common market considerations.

¹⁷⁷ Framework Directive, *supra* note 38.

¹⁷⁸ Art. 4(3)(a)(i), Waste Regulation, *infra* note 179.

¹⁷⁹ Council Regulation (EEC) No 259/93 of 1 Feb. 1993 on the supervision and control of shipments of waste within, into and out of the European Community, OJ L 30/1, 06.02.1993 [hereinafter Waste Regulation].

¹⁸⁰ Art. 18, *id.*

¹⁸¹ Today article 95, EC Treaty, *supra* note 153.

¹⁸² Today article 175, *id.*

¹⁸³ *Id.*

The purpose of the regulation is to impose a series of bureaucratic obstacles on the transfer of wastes in the hope that those willing to transfer wastes will be deterred from doing so. The need to simplify the bureaucratic nature of the regulation – which is quite “controlling” on the amount of differentiation it allows – is expressed in recent Community strategy documents.¹⁸⁴

4.3.1. Intra-Community Trade

For Disposal

States may take measures to prohibit waste shipments generally, partially or systematically by invoking the proximity and self-sufficiency principles, or in order to advance recycling as long as they inform the Commission.¹⁸⁵ States, however, cannot ban waste imports from states with small waste production and, consequently, insignificant waste management capacity.¹⁸⁶ States with small waste production will have to contact potential importing states. If such efforts are not fruitful, they can refer the matter to the Commission, which would have to resolve the issue by applying article 18 of the Waste Framework Directive.¹⁸⁷

In states where no prohibitions are in force, a waste shipment can take place after the prior notification and consent of the importing state. The procedure of notification of importing states is addressed in detail in the regulation. The notifier – who can be any person in possession or control of the wastes¹⁸⁸ – must notify the importing, exporting and transit states and the operator of the waste management facility (the consignee).¹⁸⁹ The

¹⁸⁴ See Council Resolution of 24 February 1997 on a Community strategy for waste management, OJ C 76/1, 11.03.1997 which invites the Commission to examine the possibility of simplifying the administrative procedures of Regulation (EEC) No 259/33.

¹⁸⁵ Art. 4(3)(a)(i), Waste Regulation, *supra* note 179.

¹⁸⁶ Art. 4(3)(a)(ii), *id.*

¹⁸⁷ Art. 4(3)(a)(iii), *id.*

¹⁸⁸ Art. 2(g), *id.*: “Notifier means any natural person or corporate body to whom or to which the duty to notify is assigned, that is to say the person referred to hereinafter who proposes to ship waste or have waste shipped: (i) the person whose activities produced the waste (original producer); or (ii) where this is not possible, a collector licensed to this effect by a Member State or a registered or licensed dealer or broker who arranges for the disposal or the recovery of waste; or (iii) where these persons are unknown or are not licensed, the person having possession or legal control of the waste (holder); or (iv) in the case of import into or transit through the Community of waste, the person designated by the laws of the State of dispatch or, when this designation has not taken place, the person having possession or legal control of the waste (holder).” According to article 3(8), the notification procedure may be initiated by the exporting state. *Id.*

¹⁸⁹ Art. 3(1), *id.* Consignee is the person to whom the waste is shipped for recovery or disposal. See also art. 2(h), *id.*

notification – in the form of a standard consignment note¹⁹⁰ – must include information on the source and composition of wastes, arrangements for routing, insurance and safe transport and the identity of the disposal facility and original producer.¹⁹¹ The notifier must have a contract with the consignee specifying that the notifier will take the wastes back, if the shipment is not completed as planned, or if its completion violates the regulation.¹⁹² The consignee must provide also the notifier with a disposal certificate no later than a hundred and eighty days after the receipt of wastes.¹⁹³

After receiving the notification, the importing state must send an acknowledgement to the notifier, the exporting and transit states and the consignee.¹⁹⁴ The importing state must decide, within thirty days after the acknowledgment, whether it will consent, refuse, or require additional information for the waste shipment.¹⁹⁵ It must authorize the shipment only if it does not have objections and makes sure that the other affected states do not have objections either.¹⁹⁶ The exporting and transit states may object also in writing to the waste shipment,¹⁹⁷ or impose conditions on waste transfers within their jurisdiction.¹⁹⁸ But these conditions must not be more stringent than those imposed on similar domestic waste shipments.¹⁹⁹

Under article 4(3), objections of importing and exporting states may be based on the proximity and self-sufficiency principles, as well as the implementation of waste management plans that account for geographical circumstances or the need for specialized installations for certain types of wastes.²⁰⁰ Exporting, importing and transit states may raise objections, if a shipment violates their environmental laws and regulations, public order, public safety or health protection. Objections may be based also on obligations arising out of international conventions, or on the past involvement of notifier or consignee in illegal waste trafficking.²⁰¹

¹⁹⁰ Art. 3(3)-(4), *id.* See also art. 2(o), *id.*

¹⁹¹ Art. 3(5), *id.*

¹⁹² Art. 3(6), *id.*

¹⁹³ *Id.*

¹⁹⁴ Art. 4(1), *id.*

¹⁹⁵ Art. 4(2)(a), *id.*

¹⁹⁶ *Id.*

¹⁹⁷ Art. 4(2)(b), *id.*

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

²⁰⁰ Art. 4(3)(b), *id.*

²⁰¹ Art. 4(3)(c), *id.*

Wastes can be shipped only after the notifier receives the authorization of the state of destination.²⁰² Without such an authorization waste transfers are illegal.²⁰³ After receiving the authorization, the notifier must send copies of the consignment note to all states concerned three days before the shipment.²⁰⁴ The consignment note and authorization must accompany each waste shipment.²⁰⁵ Three days after receiving the wastes, the consignee must send a copy of the consignment note to the notifier and all affected states.²⁰⁶ No later than a hundred and eighty days after receipt of the wastes, the consignee must send also to the notifier a disposal certificate.

The requirement for prior authorization, the proximity and self-sufficiency principles, and the right to ban waste imports are novelties of the 1993 Regulation. The previous legislation merely required acknowledgment of the receipt of notification by the importing state.²⁰⁷ These burdensome restrictions were adopted hoping that they would minimize waste shipments and advance sound waste management. But they are unlikely to be successful. The belief that obstacles to waste movements increase industry's willingness to behave lawfully is unrealistic because it ignores the fact that wastes are perceived generally as materials of no value. This view of wastes as valueless materials motivates generators to dispose of them illegally.

For Recovery

The regulation followed initially the classification of recyclable wastes adopted in the 1992 OECD Decision.²⁰⁸ The OECD Decision classified wastes destined for recovery in three categories: green list wastes that are transferred as goods; amber list wastes that are subject to more significant controls; and red list wastes that are controlled stringently.²⁰⁹ The Community amended the regulation to follow the 2001 amendment of the OECD Decision that did away with the red list waste classification.²¹⁰

²⁰² Art. 5(1), *id.*

²⁰³ Art. 26(1), *id.*

²⁰⁴ Art. 5(2), *id.*

²⁰⁵ Art. 5(3), *id.*

²⁰⁶ Art. 5(5), *id.*

²⁰⁷ Art. 4, 1984/86 Directive, *supra* note 150.

²⁰⁸ See Louka, *supra* note 5, at 58.

²⁰⁹ *Id.*

²¹⁰ See *supra* Section 4.1.

Before the shipment of amber list wastes the tacit or explicit consent of the importing country is necessary.²¹¹ The consignment note must contain the information required when wastes are destined for disposal, as well as information on the amount of recycled material in relation to the residual waste, the method of disposal of the residual waste and the value of recycled material.²¹² The contract between the notifier and consignee must specify the obligation of the notifier to retrieve the wastes when the contract is not executed as agreed. The contract must provide also for consignee's duty to supply the notifier with a recovery certificate.²¹³

The states of destination, dispatch and transit may raise objections if a shipment violates their waste management plans, environmental laws, public order, public safety or health protection. They may raise objections also if the notifier or consignee has been found guilty of prior illegal trafficking, if recycling is not justifiable on economic and environmental grounds, or if the shipment conflicts with obligations undertaken under international conventions.²¹⁴

However, states cannot totally or systematically prohibit waste imports based on the principles of proximity and self-sufficiency. In fact, importing states may decide not to raise objections to waste shipments to a specific recovery facility, and inform the Commission accordingly.²¹⁵ The Commission must inform the OECD and the other affected states.²¹⁶ The exporting and transit countries may still object to the waste shipment or impose conditions.²¹⁷ The affected states must inform the Commission if they need to review the contract between the notifier and the consignee. In that case, they must receive the contract seven days before the shipment.²¹⁸ The regulation prescribes more restrictions for green list waste exports than the OECD Decision.²¹⁹

²¹¹ The consent is considered tacit if thirty days after the acknowledgment of notification no objections have been raised. See art. 8(I), Waste Regulation, *supra* note 179.

²¹² Art. 6(5), *id.*

²¹³ Art. 6(6), *id.*

²¹⁴ Art. 7(4)(a)-(b), *id.*

²¹⁵ Art. 9(1)-(2), *id.*

²¹⁶ *Id.*

²¹⁷ Art. 9(3), *id.*

²¹⁸ Art. 9(4), *id.*

²¹⁹ According to article 11 information concerning green list waste transfers must include: the name and address of the holder, the usual commercial description of waste, the quantity of waste, the name and address of the consignee, the recovery operations and the anticipated date of shipment. *Id.*

4.3.2. Waste Exports

For Disposal

Waste exports to other countries are prohibited except for those to European Free Trade Association (EFTA) countries that are parties to the Basel Convention.²²⁰ Yet even exports to EFTA countries can be banned, if the EFTA country prohibits them altogether, has not given its written consent, or the exporting state has reason to believe that wastes will be mismanaged in the EFTA country.²²¹

To export wastes, the notifier must send the notification to the exporting member state. Copies of the notification must be sent also to the consignee and the other states concerned.²²² The exporting member state must send to the notifier, within three working days, written acknowledgment of the notification.²²³ The notifier must provide the exporting state with the written consent of the EFTA country, confirmation of a contractual relationship between the notifier and the consignee verified by the EFTA country²²⁴ and the written consent of states of transit.²²⁵ The exporting and transit states may raise objections, refuse or allow the shipment with or without conditions.²²⁶ Objections may be based on article 4(3) – on the same grounds that apply for intra-Community waste shipments. The consignment note must be delivered by the carrier to the last customs office of departure within the Community.²²⁷ After the wastes have left the Community, the customs office must send a copy of the consignment note to the competent authority that issued the authorization.²²⁸ If the exporting state receives no information from the consignee it must inform the importing country.²²⁹

²²⁰ Art. 14(1), *id.*

²²¹ Art. 14(2), *id.*

²²² Art. 15(1), *id.*

²²³ *Id.*

²²⁴ The contract must require the consignee to provide copies of the fully completed consignment note to the notifier and the competent authorities concerned three working days after the receipt of the wastes. The consignee must provide also a certificate of disposal in no less than a hundred and eighty days after the receipt of the wastes. If the certificate is incorrect, the contract must provide that the notifier will bear the costs of taking the wastes back and disposing of them. *See* art. 15(4)(b), *id.*

²²⁵ Art. 15(4), *id.*

²²⁶ Art. 15(2)-(3) & (5), *id.*

²²⁷ Art. 15(8), *id.*

²²⁸ Art. 15(9), *id.*

²²⁹ Art. 15(10), *id.*

For Recovery

Because waste exports to allegedly recycling operations frequently end up in uncontrolled dumps, the Community has prohibited all waste exports for recovery. Exports are allowed only to OECD states, state parties to the Basel Convention or states with which the Community or the Community and its states have concluded bilateral, multilateral or regional agreements. Waste exports are allowed also to countries with a bilateral agreement with a member state before the entry into force of the regulation.²³⁰

All agreements must guarantee environmentally sound waste management at an authorized facility. Agreements must provide also for the treatment of the non-recoverable portion of waste, and allow, if possible, on-the-spot examination of compliance.²³¹ The Commission must review the agreements no later than the end of 1996. Thereafter, they must be reviewed periodically. In reviewing the agreements the Commission must take into account the experience of the importing country and its ability to carry out sound recycling operations. The Commission must inform the Parliament and the Council of the results of its review. If the review demonstrates that sound waste management is not guaranteed, exports to that state would be reconsidered, including the possibility of a ban.²³²

No waste exports are allowed to countries prohibiting waste imports, not consenting to a specific import, or to countries in which the exporting state believes wastes will be mismanaged.²³³

The notification procedure differs depending on the categories of wastes exported. Green list waste exports to OECD countries are not subject to any controls. The Commission must, however, provide non-OECD countries with the green list – included in Annex II of the regulation – and request written confirmation from those countries that green list wastes are free from controls within their jurisdiction.²³⁴ If green list wastes are regulated in the importing country, the Commission and the importing country must agree on the applicable measures.²³⁵

The intra-Community provisions for recycling govern the amber list waste exports to OECD countries. The intra-Community provisions for disposal

²³⁰ Art. 16(1)(a)-(b), *id.*

²³¹ Art. 16(2)(a)-(c), *id.*

²³² Art. 16(2)(d), *id.*

²³³ Art. 16(3), *id.*

²³⁴ Art. 17(1), *id.*

²³⁵ Art. 17(3), *id.*

govern the exports of amber list wastes and not yet classified wastes to non-OECD countries.²³⁶

4.3.3. Waste Imports

For Disposal

Waste imports are allowed, if the exporting country is party to the Basel Convention, or if it has a bilateral, regional or multilateral agreement with the Community or the Community and its member states. Waste imports are authorized also, if the exporting country had a bilateral agreement with a member state before the regulation becomes effective.²³⁷ Bilateral agreements concluded after the entry into force of the regulation are valid only in exceptional cases for wastes that cannot be managed soundly in the exporting country.²³⁸

The notifier must send the standard consignment note to the importing member state, the transit state and the consignee.²³⁹ The importing state may authorize or refuse the shipment, ask for additional information, raise objections or impose conditions.²⁴⁰ Any objections must be based on article 4(3).²⁴¹ The importing state must send a certified copy of its decision to the competent authorities of the transit state, the customs office of entry into the Community and the consignee.²⁴² After receiving the wastes, the consignee must send back to the notifier the completed consignment note and the certificate of disposal.²⁴³

For Recovery

Waste imports for recovery are allowed only from OECD countries, state parties to the Basel Convention or states having bilateral, multilateral or regional agreements with the Community. Waste imports are allowed also from countries with agreements with individual member states before the application of the regulation, as long as the Commission is notified.²⁴⁴ Member states may enter into bilateral import agreements with third states after the application of the regulation only in order to avoid interruption

²³⁶ Art. 17(8) & art. 15, *id.* See also art. 17(8) & art. 7(4), *id.*

²³⁷ Art. 19(1), *id.*

²³⁸ Art. 19(2), *id.*

²³⁹ Art. 20(1), *id.*

²⁴⁰ Art. 20(3)-(5), *id.*

²⁴¹ Art. 20(3), *id.*

²⁴² Art. 20(4), *id.*

²⁴³ Art. 20(8)-(9), *id.*

²⁴⁴ Art. 21(1)(a)-(b), *id.*

of waste treatment already provided.²⁴⁵ Imports of recyclable wastes into the Community are restricted by the intra-Community waste trade rules for recycling.²⁴⁶

4.3.4. Common Provisions

Aware of the delays embedded in the system of prior notification and authorization, the Community has adopted more flexible requirements for wastes of the same physical and chemical characteristics shipped periodically to the same consignee following the same route.²⁴⁷ In that case, countries may agree to use a general notification procedure for all shipments for a maximum period of a year.²⁴⁸

Waste transfers without the consent of competent authorities are illegal,²⁴⁹ and states of origin must ensure the proper disposal of wastes transferred in that manner. When illegal trafficking is initiated by a notifier, the exporting country must repatriate the wastes.²⁵⁰ Wastes must be taken back also whenever their disposal or recovery violates the terms of the consignment note or contract.²⁵¹

All waste shipments must be insured,²⁵² and wastes requiring different types of notifications must not be mixed during transportation.²⁵³ States are required to enforce the regulation by inspections and on-the-spot checks of shipments.²⁵⁴ Member states must designate specialized customs offices for waste imports and exports.²⁵⁵ States must submit a report to the Basel Convention Secretariat on the amount of wastes exported or imported, their destination and characteristics, on waste reduction, transportation accidents, and disposal plans that did not materialize as planned. Based on these reports the Commission must prepare a report every three years on the implementation of the regulation.²⁵⁶ The Commission must prepare also a model consignment note and a model disposal and recovery certificate.²⁵⁷

²⁴⁵ Art. 21(2), *id.*

²⁴⁶ Art. 22, *id.*

²⁴⁷ Art. 28(1), *id.*

²⁴⁸ Art. 28(2), *id.*

²⁴⁹ Art. 26(1), *id.*

²⁵⁰ Art. 26(2), *id.*

²⁵¹ Art. 25, *id.*

²⁵² Art. 27, *id.*

²⁵³ Art. 29, *id.*

²⁵⁴ Art. 30, *id.*

²⁵⁵ Art. 39, *id.*

²⁵⁶ Art. 41, *id.*

²⁵⁷ Art. 42, *id.*

4.3.5. Recent Developments

Despite the presumption that green list wastes are innocuous, the Community has adopted a procedure through which it has asked non-OECD countries whether they would accept green list waste. In case of non-response from the countries asked, the Community assumes that waste transfers are not allowed. The Commission has consolidated the responses of different countries into regulations that have amended Regulation No 259/93.²⁵⁸ It is interesting to note that countries that initially expressed a desire to accept wastes under a control procedure or have prohibited imports altogether have changed their mind and decided to accept green list wastes as commercial goods. For instance, Guinea notified the Commission on March 22, 2001 that the import of certain Annex II wastes would be accepted without any control procedure.²⁵⁹ And the same is true with Paraguay, Singapore,²⁶⁰ Bulgaria, Nigeria²⁶¹ and China.²⁶²

²⁵⁸ Certain green list wastes are subject to the amber list procedure in the following countries: Bulgaria, Cyprus, Indonesia, Jamaica, Macau, Poland, Singapore, Thailand and Tunisia. Countries which apply the red list procedure instead of the green list procedure for certain green list waste include: Argentina, Bosnia & Herzegovina, China, Colombia, Cuba, Estonia, Guinea, Guinea Bissau, Hungary, India, Indonesia, Lithuania, Madagascar, Malta, Mauritius, Nigeria, Russia, Singapore, Slovakia, Togo, Trinidad and Tobago, Ukraine and Zambia. Countries where the procedures for disposal (article 15 of Regulation No 259/93) should apply for certain green list wastes include: Belarus, Latvia, Philippines, Romania, Taiwan and Uruguay.

Countries to which certain shipments of green list waste may continue under the same conditions that apply to normal transactions (some green list wastes, though, may be more restricted than others) include: Albania, Angola, Brazil, Benin, Bulgaria, Burkina Faso, Cameroon, Central African Republic, Chad, Chile, China, Congo, Democratic Republic of Congo, Croatia, Cyprus, Egypt, Estonia, Gambia, Georgia, Grenada, Hong Kong, India, Indonesia, Israel, Kuwait, Lebanon, Liechtenstein, Lithuania, Madagascar, Malawi, Malaysia, Mali, Mauritania, Monaco, Niger, Pakistan, Paraguay, Philippines, Rwanda, San Marino, Sao Tome Principe, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Suriname, Taiwan, Tanzania, Thailand, Tunisia, Uganda and Zambia.

See Commission Regulation (EC) No 1547/1999 of 12 July 1999 determining the control procedures under Council Regulation (EEC) No 259/93 to apply to shipments of certain types of waste to certain countries to which OECD Decision C(92)final does not apply, OJ L 185/1, 17.07.1999. See also Council Regulation (EC) No 1420/1999 of 29 April 1999 establishing common rules and procedures to apply to shipments to certain non-OECD countries of certain types of waste, OJ L 166/6, 01.07.1999; Commission Regulation (EC) No 1552/2000 of 14 July 2000 amending Regulation (EC) No 1547/1999 concerning the control procedures to apply to shipments of certain types of waste to: Estonia, Hong Kong, Hungary, Indonesia, Lithuania, San Marino and Thailand, OJ L 176/27, 15.07.2000.

²⁵⁹ Commission Regulation (EC) No 1800/2001 of 13 September 2001 amending Council Regulation (EC) No 1420/1999 and Regulation (EC) No 1547/1999 as regards shipments of certain types of waste to Guinea, OJ L 244/19, 14.09.2001.

²⁶⁰ Commission Regulation (EC) No 2243/2001 of 16 November 2001 amending Council Regulation (EC) No 1420/1999 and Commission Regulation (EC) No 1547/1999 as regards

The Community has incorporated the 2001 OECD Decision²⁶³ that does away with the red list control procedure and has preserved only two control procedures – the green list and the amber list.²⁶⁴ The incorporation of the 2001 OECD Decision is a welcomed alleviation of the bureaucracy that plagues waste transfers and could help revitalize the recycling industry.

The Commission is concerned about the problems plaguing the recycling industry. The recycling industry is confronted with insufficient demand, heterogeneous waste streams and fierce competition from the virgin raw materials sector. The industry is very fragmented due to lack of technical standards and testing methods. Other factors that contribute to the fragmentation of the industry have to do with the lack of consistency regarding the definition, classification and transfer of waste. The Commission has recommended to simplify legislation and to increase the use of market-based instruments, including taxes and charges, which would ensure that recycling becomes a competitive option.²⁶⁵

5. CROSS-BORDER MOVEMENTS OF RADIOACTIVE WASTE

The Radioactive Waste Directive²⁶⁶ contains no reference to the principles of proximity or self-sufficiency. This is because it is obviously environmentally unsound to require each country to become self-sufficient in radioactive waste management or develop its nuclear waste management infrastructure based on the proximity principle. Nonetheless, the directive

shipments of certain types of waste to Cameroon, Paraguay, Singapore, OJ L 303/11, 20.11.2001.

²⁶¹ Commission Regulation (EC) No 1208/2000 of 8 June 2000 amending Council Regulation (EC) No 1420/1999 establishing common rules and procedures to apply to shipments of certain types of waste from the European Community to Bulgaria and Nigeria, and Regulation (EC) No 1547/1999 concerning the control procedures to apply to shipments of certain types of waste to Bulgaria and Nigeria, OJ L 138/7, 09.06.2000.

²⁶² Commission Regulation (EC) No 354/2000 of 16 February 2000 amending Regulation (EC) No 1547/1999 concerning the control procedures to apply to shipments of certain types of waste to China, OJ L 45/21, 17.02.2000.

²⁶³ See *supra* Section 4.1.

²⁶⁴ See Commission Regulation (EC) No 2557/2001 of 28 December 2001 amending Annex V of Council Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community, OJ L 349/1, 31.12.2001.

²⁶⁵ Communication from the Commission of 22 July 1988: the competitiveness of the recycling industries, COM (98) 463 final.

²⁶⁶ Council Directive 92/3/Euratom of 3 February 1992 on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community, OJ L 35/24, 12.02.1992 [hereinafter 1992 Directive].

has not dispensed with the bureaucracy of the system of prior consent. The prior authorization system adopted in the directive is similar to the prior notification system of the 1993 Waste Transfer Regulation. A striking difference is that the country of origin of wastes acts as a sort of mediator between the waste holder and the country of destination probably because radioactive wastes are considered more of a government responsibility rather than an industry liability.

The holder of radioactive wastes²⁶⁷ who intends to ship them within the Community must submit an application to the country of origin of wastes. The country of origin must send the application for approval to the country of destination and the countries of transit.²⁶⁸ The country of destination may take as long as three months to approve, refuse, or set conditions for the shipment.²⁶⁹ Three months is a long period of time given today's rapid means of communication. If no response is received within two months, the consent of transit and destination countries is implied "unless they have informed the Commission that they do not accept this automatic approval procedure."²⁷⁰

To lessen the burden of the application procedure, a general authorization can be granted for multiple shipments under the following conditions: the radioactive waste has essentially the same physical, chemical and radioactive characteristics, and the holder, disposer and states involved are the same.²⁷¹ General authorizations cannot last for more than three years.²⁷²

After the approval of the transit and destination states, the state of origin can authorize the shipment.²⁷³ The approvals and the holder's application must accompany each shipment.²⁷⁴ After receiving the wastes, the consignee²⁷⁵ must send an acknowledgment to the state of destination,²⁷⁶

²⁶⁷ "Holder of radioactive wastes" is defined as "any natural or legal person who, before carrying out a shipment, has the legal responsibility for such materials and intends to carry out shipment to a consignee." Art. 2, *id.*

²⁶⁸ Art. 4, *id.*

²⁶⁹ Art. 6(1) & (3), *id.*

²⁷⁰ Art. 6(4), *id.*

²⁷¹ Art. 5, *id.*

²⁷² *Id.*

²⁷³ Art. 7, *id.*

²⁷⁴ Art. 8, *id.*

²⁷⁵ Consignee of radioactive wastes "means any natural or legal person to whom such material is shipped." See art. 2, *id.*

²⁷⁶ Art. 9(1), *id.*

which must send copies of the acknowledgment to the other countries involved in the operation.²⁷⁷

For waste imports into the Community, the state of the consignee is considered the country of origin. Hence, the consignee is the one who must submit an application to the member state where her facility is located.²⁷⁸ For wastes transferred through the Community, the state through which the wastes enter the Community is regarded as the country of origin.²⁷⁹

Waste exports to Antarctica and sixty-eight ACP state parties to the Lomé Convention are prohibited.²⁸⁰ Waste exports are prohibited also if the country of origin determines – using certain criteria to be established at a later date – that the country of destination is deprived of the “technical, legal or administrative resources to manage the radioactive waste safely.”²⁸¹ Otherwise, the country of origin,²⁸² if the conditions imposed by the country of destination are fulfilled, must authorize the waste shipment and inform accordingly the country of destination.²⁸³ The holder must notify the country of origin when wastes arrive at their destination and indicate the last Community customs office through which they passed.²⁸⁴ The holder's notification must be substantiated by a declaration of the consignee verifying the receipt of wastes and the post of entry in the country of destination.²⁸⁵

Waste shipments that cannot be completed in compliance with the directive must be taken back.²⁸⁶ Member states must provide the Commission with the names and addresses of their competent authorities²⁸⁷ and must complete bi-annual reports on the implementation of the directive.²⁸⁸ The Commission must prepare the “standard document” for authorization, approval and acknowledgment of receipt.²⁸⁹

²⁷⁷ Art. 9(2), *id.*

²⁷⁸ Art. 10(1), *id.*

²⁷⁹ Art. 10(2), *id.*

²⁸⁰ Art. 11(1), *id.*

²⁸¹ Art. 11(2), *id.*

²⁸² Art. 12(1), *id.*

²⁸³ Art. 12(2), *id.*

²⁸⁴ Art. 12(5), *id.*

²⁸⁵ Art. 12(6), *id.*

²⁸⁶ Art. 15, *id.*

²⁸⁷ Art. 17, *id.*

²⁸⁸ Art. 18, *id.*

²⁸⁹ Art. 20, *id.*

The directive does not apply to small quantities of radioactive wastes with no significant concentrations of radionuclides.²⁹⁰ It identifies as radioactive wastes only materials “for which no use is foreseen.”²⁹¹ This excludes from the definition spent fuel destined for reprocessing. And this is reasonable since global security concerns dictate that exports of spent fuel must be regarded as exports of nuclear substances and must be controlled more stringently.

6. CONCLUSION

The European Community was born as an economic Community with the goal of eliminating internal barriers to the free movement of goods, services and capital. Economic integration, it is hoped, fosters the development of economies of scale, enhances competitiveness and appeases the divisive nationalism that fueled two world wars. For the federalists economic integration is bound to lead, due to the spillover effect, to closer political and social integration and finally to unification.²⁹²

European integration has proceeded rapidly since the Treaty of Rome. Setbacks and crises have not been infrequent, but integration seems to progress in spite of – or because of – them. The Single European Act has been followed by the Treaty on European Union, which is followed by the Amsterdam and Nice Treaties. Now most European Community countries share a common currency: the euro.²⁹³

Environmental policy entered formally the Community agenda in 1987 with the ratification of the Single European Act. Since then the Community’s competence in the area of the environment is firmly established.²⁹⁴ The Community has made extensive use of this competence in the field of waste management by enacting comprehensive waste legislation and radioactive waste management programs. Regarding waste transfers, however, the Community has made paradoxical use of its competence: instead of eliminating interstate barriers to waste trade, it has raised such barriers. For waste movements within the Community, the 1993 Regulation has incorporated a basically international rule – the requirement of prior notification and informed consent – that applies also to waste movements between the Community and third countries. This requirement is not

²⁹⁰ Art. 1(1), *id.*

²⁹¹ Art. 2, *id.*

²⁹² See Chapter 1, Section 1.

²⁹³ *Id.*

²⁹⁴ *Id.*

applicable to waste movements within a member state rendering national borders a decisive element in the regulation of waste movements.

Raising national barriers to waste movements is the exact opposite of what one would expect the Community to do based on its purpose of elimination of trade barriers. Factoring barriers to waste trade would lead, as most environmental policies based on national borders, to absurd situations. A waste generator transferring wastes to a remote and ineffective domestic facility, for example, will not need the consent of transit and receiving localities. But transferring wastes to a proximate and effective foreign facility will be impossible without the consent of the affected countries. For certain waste generators proximate facilities are not their national facilities. Therefore, proximity will have to be sacrificed for self-sufficiency or vice-versa. Even when both proximity and self-sufficiency favor a domestic facility over a foreign facility, such preference is hardly defensible from a Community standpoint.

The Community idea is based on the conviction that a common or joint approach to shared problems will be more effective than an individualistic, nationalist approach. Waste management is a common problem for which the Community has explicit authority to prescribe policies, and the same rationale should have prevailed for its handling. A narrow interpretation of Community legislation could lead to conclusions that a pro-integration rationale did not prevail. The Community, instead, seems to have considered desirable to establish self-sufficiency in waste management not only at the Community level (waste trade with third countries), but also at the member state level (intra-Community trade). In other words, if the notion of self-sufficiency is construed restrictively and without regard to the qualifications contained in the text of the legislation, it will clash with the spirit of European solidarity.

In another study I proposed that the notion of transnational waste management should replace proximity and self-sufficiency. Transnational waste management could be translated, at the Community level, into trans-European waste management. Trans-European waste management entails the development of regional facilities coordinated or planned at the Community level. It entails also the permission of transnational waste transfers as long as certain quality standards are satisfied. The current Community legislation contains elements of trans-European waste management: it forces member states to submit to the Commission their waste management plans and their facilities' identity. But these provisions are not sufficient. After receiving the information about national disposal plans the Commission must have the authority to study and coordinate them. The Commission must be further empowered to require the

necessary modifications. The Commission, or an assisting agency, must act as a coordinator with an overall oversight of the prevalent circumstances and future waste management needs. This is especially so because the goals of sound waste management are conflicting. Making waste management facilities profitable may undermine plans for waste reduction – the ultimate goal of waste management. The successful interplay, therefore, between the private and public sectors will be pivotal in trans-European waste management.

In the final analysis, the notion of self-sufficiency does not need to undermine efficiency and effectiveness since it is not absolute. Under the 1993 Regulation, waste imports and exports are still allowed, especially, for recyclable materials. There are also other qualifications mandating that “the geographical circumstances” and the need for specialized facilities must be considered. The 1991 Framework Directive provides also that member states must develop an integrated network of disposal facilities. The possibilities that these qualifications offer must be taken advantage of for a pro-integration interpretation of the regulation and the initiation of trans-European waste management. The Community has plans already for the development of trans-European networks in the areas of transport, telecommunications and energy infrastructure. Waste management must not be an exception.

CHAPTER 7. REGULATING BIODIVERSITY

1. BIODIVERSITY PROTECTION: FACTS AND METHODS

The protection of biodiversity¹ came to the limelight with the adoption of the 1992 Convention on Biological Diversity.² Alarming reports about the worldwide extinction of species gave the impetus for the adoption of the convention and made the protection of species and habitats a matter of public attention.³

The impetus for the development of a Pan-European Biodiversity Strategy was given during a ministerial conference in Dobris Castle (former Czechoslovakia) in 1991. For the purposes of this conference the European Environment Agency developed a report called “Europe’s Environment: The Dobris Assessment.” The report assessed the state of environment in Europe in eight different areas. The report included disturbing findings:

- six percent of Europe’s area is under landscape protection but with weak legal status;
- forests that once covered 80 to 90 percent of the European territory have been reduced now to 33 percent;
- inland wetlands are disappearing in large numbers;
- seventy percent of the coastline of Mediterranean is facing pressures and threats;
- many plants and animal species are threatened with extinction.

The causes of this dismal environmental situation, the report identified, have to do with intensive agriculture, forest mismanagement, and policies applied in industry, energy and transport that have adverse effects on the environment.⁴

Attempts to protect biodiversity in the European Community date as early as in the late 1970s. Since then measures to protect biodiversity have followed in step with the international developments. Despite this close interconnection between the EC policy and international measures, however, the European philosophy on biodiversity protection derives from

¹ Biodiversity is a term that has been developed by conservation biologists and it is more or less equivalent with the terms “nature” and “wilderness.” See Elli Louka, *Biodiversity & Human Rights* 34 (2002).

² Convention on Biological Diversity, June 5, 1992, *reprinted in* 31 I.L.M. 818 (1992).

³ Louka, *supra* note 1, at 1.

⁴ European Environment Agency, *Europe’s Environment: The Dobris Assessment* (David Stanners & Philippe Bourdeau eds., 1995).

an experience that understands the need for management of often heavily impacted landscapes.

European Union rules and regional instruments, instead of putting emphasis on the protection of isolated habitats from which human use is excluded, emphasize the protection of landscapes that require human intervention and management. Given the impact of human activities on the European continent and the density of the population, the isolation of specific areas for protection would be impracticable. By focusing on landscapes, instead of nature reserves, the European policies present a more humanistic approach than many other policies applied today.

Most international policies for the protection of biodiversity, as applied today, are often in conflict with human rights values. The European approach to biodiversity protection, while not specifically mentioning human rights, because of its positive outlook on the interaction between humans and nature, is closer to a human dignity application of biodiversity protection policies.

The conservation of species and habitats has been the subject of national agendas in Europe and other countries for many decades. Countries have tried to protect species and habitats by means of *in situ* conservation (mostly nature reserves or landscapes), *ex situ* conservation (gene bank management) and restoration. *In situ* conservation methods have been attempted in developing countries since these countries are perceived to preserve in pristine condition a large number of habitats worthy of protection. Gene banks have been developed worldwide but the best collections are still in developed countries. Restoration is not a very popular biodiversity protection method because the need to restore environments means that we failed to sufficiently protect them.

1.1. Nature Reserves

Nature reserves involve protection of biodiversity in its natural environment. The two approaches to nature reserves, the European and North American, are different from each other.

In Europe active management is adopted openly since most “conservation” areas are “landscapes” created by humans. Landscapes are a mosaic of “seminatural forests, woodlands, and grasslands, and agricultural fields and plantations, interspersed with hedgerows, terraces, roads and

settlements.”⁵ In landscapes humans function in harmony with the “natural ecosystems.” They are the shapers and initiators of many ecosystems. Multipurpose reforestation, afforestation, restoration and ecosystem manipulation may be used to a greater or lesser extent for landscape management.⁶ In Europe the term “ecological network” is used more extensively than the term “nature reserve” which emphasizes again a view of ecosystem management as management of interconnected areas rather than of secluded spots in the national geography.⁷

In the United States nature reserves are still perceived as areas to be isolated from humans. The 1964 United States Wilderness Act made official the notion of nature as wilderness isolated from human impacts. According to the act, nature parks are areas “where man himself is a visitor who does not remain.”⁸ Most parks, though, when they were initially established, were inhabited by the Indians who eventually became the parks’ unwelcomed guests. The establishment of the first national park in the United States uprooted the indigenous peoples living there.⁹

Despite wide-held notions that United States national parks are wilderness areas secluded from humans, management is used often to revamp “degraded reserves.” Regulated human use is allowed also but it conflicts often with the purist desire to preserve the ecosystem intact.¹⁰

Developing countries have supported strict nature reserves enticed by the potential of economic windfall from tourism and encouraged by international organizations. Developing countries have used reserves as an excuse to suppress their indigenous populations. But the strict nature reserve model is under attack in the developing world because of the large num-

⁵ Zev Naveh, *Biodiversity and Landscape Management*, in *Biodiversity and Landscapes* 187,188 (Ke Chung Kim & Robert D. Weaver eds., 1994).

⁶ *Id.* at 202-03.

⁷ See Ivan Voloscuk, *EECONET and Forests*, in *Conserving Europe's Natural Heritage: Towards a European Ecological Network* 103 (Graham Bennett ed., 1994).

⁸ See Wilderness Act of 1964, 16 U.S.C. § 1131, Section 2(c): “A wilderness... is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.”

⁹ Marcus Colchester, *Beyond “Participation:” Indigenous Peoples, Biological Diversity Conservation and Protected Area Management*, 47(3) *Unasylva* 33 (1996). See also Marcus Colchester, *This Park Is No Longer Your Land*, July 2001 available online at the United Nations Educational, Scientific and Cultural Organization (UNESCO) site http://www.unesco.org/courier/2001_07/uk/planet.htm.

¹⁰ See Frederic H. Wagner et al., *Wildlife Policies in the U.S. National Parks* (1995).

bers of landless people.¹¹ Reserves that are inadequately monitored are infiltrated by local people who view them as arbitrary violations of their natural rights to forests. Local people do not hesitate to sabotage forest reserves to demonstrate their anger against governments.¹²

Even under a modern approach to nature reserves that attempts to exclude humans only from core reserve areas,¹³ local people remain dissatisfied. The biosphere reserves proposed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) are often cited as an example of this modern approach. The biosphere reserves contain a core conservation area and buffer zones where different uses are permitted.¹⁴ But the distinction between core areas and buffer zones is not followed in practice.¹⁵ Wild animals enter freely buffer zones destroying crops and property.¹⁶ Core areas are often fertile and buffer zones are degraded generating demands to open core areas to access. The principle that nature reserves cannot exist without some allowance for human use is iterated often but it is applied superficially. The World Bank has recognized that many efforts to include local people in nature reserve management are rhetorical and that most "joint management projects" treat local people as passive entities.¹⁷

The European Union, with its unique approach to biodiversity protection, could assist in the inception and implementation of biodiversity projects in the developing world that center on human dignity values. The

¹¹ See, e.g., Richard H.V. Bell, *Conservation with a Human Face: Conflict and Reconciliation in African Land Use Planning* 79, 88, in *Conservation in Africa: Peoples, Policies and Practice* (David Anderson & Richard H. Grove eds., 1987).

¹² See, e.g., Jack Westoby, *Introduction to World Forestry* 34 (1989).

¹³ The modern approach to forest management presupposes the involvement of local communities by providing incentives to maintain the forest rather than destroy it for the quick economic benefit. The International Union for Conservation of Nature and Natural Resources (IUCN) in a revision of protected areas added a category of "managed resource protected areas," areas managed for the "sustainable use" of the ecosystem. See IUCN, *Guidelines for Protected Area Management Categories* 23 (1994).

For other attempts to classify protected areas, see National Academy of Sciences, *Managing Global Genetic Resources* (1991); United States Office of Technology Assessment, *Technologies to Sustain Tropical Forest Resources* (1994); International Tropical Timber Organization (ITTO), *Guidelines on Conservation of Biological Diversity in Tropical Production Forests* (ITTO Policy Development Series No. 5, 1993).

¹⁴ For a good description of a biosphere reserve, see Food and Agriculture Organization (FAO) *Conservation of Genetic Resources*, in *Tropical Forest Management* 41-44 (FAO paper 107, 1993).

¹⁵ See Craig L. Shafer, *Nature Reserves: Island Theory and Conservation Practice* 77 (1990).

¹⁶ See generally R. Sukumar, *The Asian Elephant: Ecology and Management* (1989).

¹⁷ Marcus Colchester, *Beyond "Participation": Indigenous Peoples, Biological Diversity Conservation and Protected Area Management*, 47(3) *Unasylva* 33 (1996).

Community has introduced a financial framework¹⁸ of € 249 million for the sustainable development of forests located in developing countries.¹⁹ Financial assistance under the regulation takes the form of grants.²⁰ Actors involved in tropical forest management can apply for funding ranging from private companies and public agencies to international organizations and associations representing forest-dependent people.²¹

The nature of activities to be funded under this regulation include:

- the development of national and international policy frameworks including institution building;
- support for the private sector and forest-dependent people;
- the conservation and restoration of forests;
- and sustainable forest management including forest certification.

The activities funded can take the form of pilot projects, studies and research. Projects that encourage the participation of people are to be given special attention.²² The regulation explicitly provides that particular emphasis should be placed on activities that ensure “the participation of forest-dependent people and local communities...taking into account their development priorities and *economic, social and cultural rights*...in order to ensure their full participation in all decision-making processes [emphasis added].”²³ This is the first regulation at the Community level that explicitly refers to the rights of peoples in conjunction with the protection of biological diversity.

1.2. Restoration

At first, restoration seems to be at odds with biodiversity protection. It seems that if ecosystems need to be restored we have lost the battle to protect them.

As development proceeds, though, and many ecosystems are degraded to the point of becoming non-productive, restoration becomes a means

¹⁸ Regulation (EC) No 2494/2000 of the European Parliament and of the Council of 7 November 2000 on measures to promote the conservation and sustainable management of tropical forests and other forests in developing countries, OJ L 288/6, 15.11.2000.

¹⁹ Art. 8, *id.*

²⁰ Art. 7, *id.*

²¹ Art. 5, *id.*

²² Art. 4, *id.*

²³ Art. 4(3), *id.*

of ecosystem management.²⁴ This is especially true in the European continent where human intervention has been invasive and often destructive. Sometimes restoring ecosystems may involve letting nature take its course. In other cases, more intensive management may be needed. The restorer is like a farmer. S/he uses all the technology available to speed up the restoration process to achieve what is socially desirable. In severely degraded ecosystems the primary goal may be prevention of erosion. In areas with abundant human habitation, it may be socially desirable to restore an easily manageable ecosystem rather than the original ecosystem. For example, in the case of a degraded agricultural land developed on a previously forested area, restoration may not involve the return to the forest but to the field's original productivity.²⁵

Because restoration is attempted rarely for the recreation of the "original" ecosystem,²⁶ it is not viewed as a true conservation method. Ecologists refuse to see restoration as a subject worthy of their attention.²⁷ According to them, restoration has nothing to do with conservation since it is impossible to bring back the climax ecosystem after its destruction. Despite these objections, restoration is becoming increasingly the centerpiece of biodiversity protection. In many cases nature reserves exist because of extensive restoration efforts. In Europe extensive restoration efforts will be needed to improve many degraded landscapes.

1.3. Gene Banks

Gene banks were developed in the 1970s and 1980s to preserve agricultural biodiversity that would otherwise disappear. The first gene banks were developed in Europe²⁸ because of the scarcity of land. Farmers,

²⁴ John Cairns Jr., *Introduction*, in *The Recovery Process in Damaged Ecosystems I* (John Cairns Jr., ed., 1980). See also William R. Jordan III, *Ecological Restoration*, in *Biodiversity* 311 (E. O. Wilson ed., 1988).

²⁵ See William R. Jordan III et al., *Restoration Ecology: Ecological Restoration as a Technique for Basic Research*, in *Restoration Ecology: A Synthetic Approach to Ecological Research* 3 (William R. Jordan III et al., eds., 1987).

²⁶ While restoration can occasionally bring back "authentic and original" systems, this is often not practical because of the costs involved. Furthermore, from a social perspective, restoration faithful to the original landscape may not be desirable.

²⁷ Restoration is presented often as a technical problem rather than as a conservation method. Engineers who engage in restoration refuse to see any use in the ecological approach and ecologists consider land reclamation a subject unworthy of their attention. See A.D. Bradshaw, *The Reclamation of Derelict Land and the Ecology of the Ecosystems*, in *Restoration Ecology* 53, *supra* note 25.

²⁸ The earliest collection of crop plants was assembled by Philippe de Vilmorin at Verrieres near Paris in the mid-nineteenth century. Subsequently collections were established in England, Germany, Sweden and Australia. These collections consisted mainly of landraces

applying modern agricultural techniques to feed a rising population, were quick to discard traditional varieties.²⁹ The diversity of traditional crops was in danger and needed to be preserved.³⁰

The purpose of gene banks is to keep safe and in good condition the seeds of traditional landraces and other varieties so that they can be used for future breeding and genetic engineering. Gene banks concentrate on traditional and advanced agricultural varieties and their wild relatives that are either under-used or under the threat of extinction.³¹ Gene banks have been instrumental in the preservation of food crops. When wars decimate indigenous germplasm, gene banks intervene to rehabilitate the farming sector of a war ravaged country. For instance, the International Agricultural Research Centers have provided assistance when seeds of a variety of sorghum called zera zera were destroyed in an attack on a gene bank in Ethiopia during a political upheaval. Similar assistance was provided to Nicaragua and Cambodia after periods of social disruption.³²

Today about 1,308 gene banks have been established worldwide. World-wide holdings of crop germplasm amount to 4.4 million accessions but the number of unique samples is smaller due to duplication.³³ Germplasm collections have been established in 130 countries and the most unique collections are located in the International Agricultural Research Centers.³⁴

Usually gene banks preserve seeds at low-temperatures but they can preserve also seeds in the field or *in vitro*. DNA banks are an alternative to traditional gene banks. DNA banks can preserve DNA sequences and whole genomes for research.³⁵

obtained by plant scientists from other countries. The first systematic collection was developed by Vavilov in Russia. See Otto H. Frankel, Anthony H.D. Brown & Jeremy J. Burdon, *The Conservation of Plant Biodiversity* 98 (1995).

²⁹ Miguel A. Alteri & Laura C. Merrick, *Agroecology and In Situ Conservation of Native Crop Diversity in the Developing World*, in *Biodiversity* 361 (E.O. Wilson ed., 1988).

³⁰ See generally Donald L. Plucknett et al., *Gene Banks and the World's Food* (1987).

³¹ *Id.* at 17-18.

³² See generally Ramesh Jaura, *Rwanda-Agriculture: North, South Cooperate to Revive Farming*, Inter Press Service, May 22, 1995; Fred Powledge, *The Food Supply's Safety Net*, 45 (No. 4) Bioscience 235, April 1995; H. Carrison Wilkes, *Plant Genetic Resources Over Ten Thousands Years*, in *Seeds and Sovereignty* 67, 86 (Jack R. Kloppenburg Jr., ed., 1988).

³³ See Report on the State of World's Plant Genetic Resources, April 22-27, 1996, CGRFA-EX2/96/2 [hereinafter Report].

³⁴ *Id.*

³⁵ DNA banks present the following advantages: DNA sequences can be stored indefinitely without requiring regeneration. Stored DNA samples can be imported freely for research purposes since they are not subject to the quarantine regulations that apply to plants and

For gene banks to be useful, they must carry information on germplasm they contain. Every germplasm must be accompanied by what is called passport data – which includes information on how the germplasm was obtained and the site of origin.³⁶ Germplasm must be checked periodically to verify whether it is still viable.³⁷ Further evaluation of germplasm may be needed to assess possible reactions to physical stresses, pathogens and predators.³⁸ Evaluation of germplasm accessions, though, is not performed as consistently as it should.³⁹ Most collections lack precise information regarding the place of origin of seeds they contain.⁴⁰ It is estimated that information is complete for only one percent of germplasm contained in gene banks.⁴¹ In addition gene banks are vulnerable to natural disasters and war. Gene banks may face shortage of electricity – since gene banks preserve collections at low temperature a prolonged power shortage could destroy their collections.⁴² Other problems include lack of storage space and computer failure. Even national programs in developed countries,⁴³ lack the financial security and ability to plan ahead due to

seeds. But reliable documentation is crucial for the use of DNA samples. While plant collections can be used even if their characteristics have been recorded inaccurately, the use of DNA samples depends on reliable information. Also the use of the samples requires a greater degree of technical knowledge. In order to develop DNA banks scientists must know which characteristics of a plant they wish to preserve. Overall DNA banks cannot assist in the regeneration of species and could not be used today for their revival. For this reason, while it is important to develop an international network of DNA repositories, DNA banks are not an alternative to traditional gene banks. *See* Frankel, *supra* note 28, at 110-11.

³⁶ Material that arrives in poor condition must be multiplied before storage. Seeds to be stored must be of high quality and of maximum viability. *Id.* at 113.

³⁷ But because of the high costs of regeneration, researchers must strike a balance between the risk of losing a viable seed and regeneration. *Id.* at 90-91. It is estimated that 46 percent of accessions held in national collections need regeneration. *See* Commission on Plant Genetic Resources, Sixth Session, Item 8 of the Provisional Agenda, Survey of Existing Data on *Ex Situ* Collections of Plant Genetic Resources for Food and Agriculture, June 19-30, 1995, CPGR-6/95/8 Annex (CPGR-Ex1/94/5 Annex).

³⁸ Frankel, *supra* note 28, at 114.

³⁹ Extensive evaluation of accessions does not exist and the information that exists is not readily available. *See* Report, *supra* note 33, at 9.

⁴⁰ *See* Frankel, *supra* note 28, at 106.

⁴¹ Peter S. Ashton, *Conservation of Biological Diversity in Botanical Gardens*, in *Biodiversity* 269, 275 (E.O. Wilson ed., 1988).

⁴² Plucknett, *supra* note 30, at 81.

⁴³ It is not only collections in developing countries that face problems. In the United States the National Seed Storage Laboratory (NSSL) is renowned for its twelve-inch reinforced concrete walls, vault doors and security system. It can withstand tornadoes, earthquakes, vandalism and terrorism. Expensive infrastructure, however, does not compensate for good organization. According to critics, the germplasm collection is poorly organized. Many accessions lack passport and characterization data. In addition, over 25 percent of the accessions are not available and this number is increasing. Some evaluation data do not exist due to the shortage of personnel. The collapse of communism in Eastern Europe has

budget uncertainties. In most countries gene bank policies are developed on an *ad-hoc* basis and lack coherence. The lack of training constrains also many national programs.

In order to insure against national gene bank failure, efforts have been made to internationalize gene bank management by storing germplasm in International Agricultural Research Centers. Also efforts have been made to insure against the destruction of collections. Most gene banks today, to be on the safe side, save a large number of seeds to the point of creating excessive overlap and sacrificing valuable space.⁴⁴ Some gene banks are building back-up cooling equipment and generators and some countries are experimenting with storing germplasm in naturally cold and dry locations.⁴⁵

Gene banks have been instrumental in preserving food crops but not in preserving wild species. This is because the value of many wild species is not known and the techniques to maintain and regenerate wild species are not very advanced.⁴⁶ Botanic gardens are geared more toward the protection of wild species.

Approximately 1,500 botanic gardens exist of which nearly 700 contain germplasm collections. Botanical gardens face problems that are similar to the problems faced by gene banks. Many botanical gardens do not have information on their collections and lack space and facilities.⁴⁷ They are hampered also by policy and staff changes.

Seeds kept in gene banks are the subject of controversy. Some developing countries seek to repatriate these seeds, control the transfer of these seeds and avert the assertion of intellectual property rights over the modification of seeds.⁴⁸ The seed wars between developing and developed countries

put the collections of those countries in serious trouble. See Fred Powledge, *The Food Supply's Safety Net*, 45 (No. 4) Bioscience 235, April 1995.

⁴⁴ The accessions of the Center for the Improvement of Maize and Wheat (CIMMYT) contain between 5,000 and 17,000 seeds. The International Rice Research Institute (IRRI) preserves between 5,000 and 8,000 seeds per accession. The obsession with the high number of seeds derives from the realization that gene banks, like all human institutions, are vulnerable. The danger that gene banks may be destroyed increases the value of duplicate collections held at different locations. These duplicate collections can serve as a back-up mechanism in the event of power failure, fire or other hazards and disasters. See Plucknett, *supra* note 30, at 81.

⁴⁵ *Id.* at 83.

⁴⁶ Report, *supra* note 33, at 56.

⁴⁷ J.E. Hernández Bermejo, *Information on Ex Situ Collections Maintained in Botanic Gardens* iv (Commission of Plant Genetic Resources for Food and Agriculture, 1996).

⁴⁸ Louka, *supra* note 1, at 135.

have led to the modification of the international system that regulates the transfer of seeds worldwide and made imperative the adoption of the International Treaty on Plant Genetic Resources.⁴⁹ The treaty strives to establish a multilateral system for the transfer of plant genetic resources worldwide and to ensure the sharing of benefits from the utilization of plant genetic resources. These goals are to be achieved by a standard Multilateral Transfer Agreement that would set the conditions for the transfer of germplasm worldwide.⁵⁰

In the European Union gene bank policies are under the domain of DG Agriculture (DG VI) rather than DG Environment. This is because the seeds preserved in gene banks are primarily seeds used in agriculture. The European Community and its member states are now parties to the International Treaty on Plant Genetic Resources. The European Community has adopted policies with the aim to coordinate the conservation, characterization, collection and utilization of genetic resources.⁵¹ According to the program spearheaded by these policies member states are to inform the Commission on a regular basis about the measures they have undertaken for the collection, characterization, utilization and conservation of their plant genetic resources.⁵² The Commission is to keep a permanent inventory of these measures.⁵³ This inventory is to be an evolving inventory since collections may be lost and utilization patterns change. The first inventory was compiled in 1994. The EC plant genetic resources program puts emphasis on rare species, species suffering from genetic erosion, on increasing agricultural diversification, and on improving the quality of agricultural products.

Further efforts will be needed in Europe to link gene bank management with the overall aims of biodiversity protection including efforts to preserve the regeneration of wild species proven to be useful for human purposes. The collection of wild resources for the pure purposes of experimentation, however, may encounter difficulties under an international climate that has rendered free access to plant resources a foregone matter.⁵⁴

⁴⁹ See International Treaty on Plant Genetic Resources for Food and Agriculture, Nov. 3, 2001 available on the FAO site <http://www.fao.org/ag/cgrfa/itpgr.htm>. As of October 2003 the treaty has been ratified by thirty-two states. Forty-two states are needed for the treaty to enter into force.

⁵⁰ Louka, *supra* note 1, at 151.

⁵¹ Council Regulation (EC) No 1467/94 of 20 June 1994 on the conservation, characterization, collection and utilization of genetic resources in agriculture, OJ L 159/1, 28.06.1994.

⁵² Art. 3(1), *id.*

⁵³ Art 3(2), *id.*

⁵⁴ Louka, *supra* note 1, at 149.

2. BIODIVERSITY POLICIES

The European Community policies for the protection of biodiversity have followed the evolution and structure of international biodiversity instruments. The first pieces of legislation concentrate on the immediate threats to biodiversity – namely the loss of habitats and species. The directives adopted copy the structure of international instruments by placing species in lists depending on their level of endangerment. Species placed in Annex I are the most endangered species whose use is prohibited but with significant exceptions. Annex II species are less endangered and their use is more or less regulated.

The Community provides also the criteria for the establishment of habitats as “special conservation areas” under the marked influence of international conventions. Regarding habitat protection, though, the Community has adopted the European perspective that places emphasis on the development of networks of protected areas rather than the establishment of isolated nature reserves. The European Community is also a driving force behind pan-European efforts to protect biodiversity with emphasis on landscapes.

The Community approach to biodiversity protection is inescapably a medium approach. Biodiversity is the largest medium of all. It encompasses air, water, soil and the variety of ecosystems and their interaction. The thematic legislation and horizontal legislation examined in prior chapters state that their ultimate goal is the protection of environment (i.e. ecosystems). Because of the complexity of ecosystems, though, devising legislation that would protect ecosystems *per se* is impracticable. The legislator has had to break ecosystem protection into pieces (air, water, soil, species, habitats) to be able to devise attainable goals that are easy to monitor and enforce. Air and water legislation and the prevention of discharges of dangerous substances are the means for the protection of biodiversity. The protection of species and habitats are handy and measurable sub-goals, the indicators of success of biodiversity programs. (For a conceptual map of biodiversity protection, *see* Figure 7.1. For an organizational map of biodiversity protection, *see* Figure 7.2.)

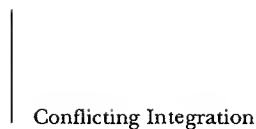


Figure 7.1. Conceptual Map of EC Biodiversity Legislation

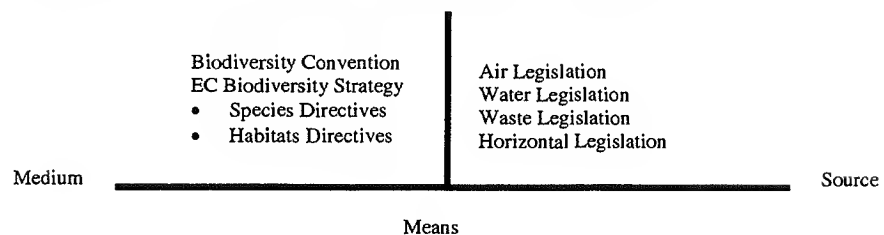
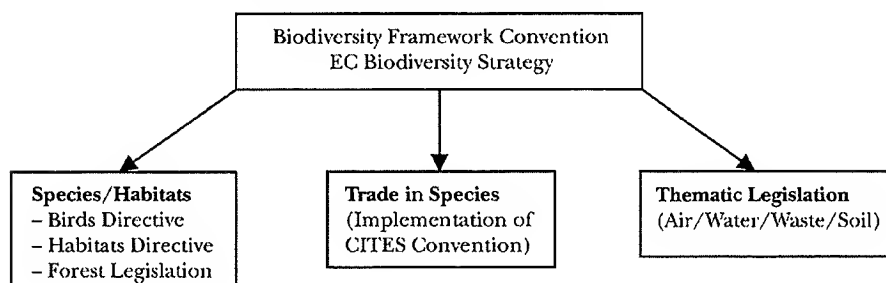


Figure 7.2. Structure of EC Biodiversity Legislation



In summary, the Community biodiversity policies:

- follow the structural and evolutionary development of international policies;
- are more open to restoration but oblivious to gene bank management since gene bank management is considered a matter of agricultural policymaking;
- contain a large number of exceptions – similar to those provided by international instruments – that allow for a sufficient degree of member state differentiation;
- are monitored and enforced more extensively since the Community has a much more sophisticated implementation apparatus than the current international system.

2.1. Regulation of Habitats and Species

Birds Directive

The purpose of the Birds Directive⁵⁵ is to revert the decline of birds within the territory of the European Community. The directive prohibits: the

⁵⁵ Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, OJ L 103/1, 25.04.1979 [hereinafter Wild Birds Directive].

deliberate killing and capture of birds; the deliberate destruction of and damage to their nests and eggs; and the deliberate disturbance of birds particularly during the breeding and rearing period.⁵⁶

The directive lists in Annex I the species of birds that are in danger of extinction. Because the most serious threat to birds is the destruction of their habitats, states are required to establish Special Protection Areas (SPAs) for the conservation of birds.⁵⁷ In this respect, the directive expressly calls for the re-establishment of destroyed biotopes for the protection of birds⁵⁸ – proposing, thus, restoration as a legitimate method of biodiversity protection.

The species listed in Annex II may be hunted if provided by state legislation but hunting must not jeopardize conservation efforts. Hunting must comply with the principles of “wise use” and “ecologically balanced control.”⁵⁹

The directive provides for exceptions that resemble the exceptions provided under the Bern Convention.⁶⁰ States can ask to be exempted from the provisions of the directive under the following circumstances:

- for reasons of public health and safety;
- in the interest of air safety;
- to prevent damage to forests, fisheries and water;
- for the purposes of research, teaching, repopulation and reintroduction.

States can allow, in strictly supervised conditions and on a selective basis, the capture and other use of certain birds in small numbers.⁶¹

To be eligible for derogations, states must specify:

- the species that are subject to exceptions;
- the methods authorized for capture and killing;
- the time and place where the exceptions apply;
- and the authority that must decide the specifics of exceptions.⁶²

Member states must send to the Commission a yearly report on the appropriate application of exceptions. The Commission must ensure that

⁵⁶ Art. 5, *id.*

⁵⁷ Art. 4(1), *id.*

⁵⁸ Art. 3(2)(c), *id.*

⁵⁹ Art. 7(4), *id.*

⁶⁰ See *infra* Section 3.2.

⁶¹ Art. 9(1), Wild Birds Directive, *supra* note 55.

⁶² Art. 9(2), *id.*

exceptions are not incompatible with the purpose of the directive.⁶³ States must submit also to the Commission every three years a report on the general implementation of the directive that would help the Commission prepare a composite report.⁶⁴ The Commission is assisted by a Committee, called ORNIS Committee,⁶⁵ the purpose of which is to adapt the directive to technical and scientific progress.

The implementation of the Birds Directive has encountered difficulties especially regarding the designation of SPAs. According to the Commission “[e]xisting SPAs for birds in a number of Member States are still too few in number or cover too small an area.” Action has been taken against member states for failure to adopt measures that would preserve diversity in the SPAs.⁶⁶

Implementation of CITES Convention

The Community regulation of trade in endangered species essentially implements the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention).⁶⁷ Because the Community constitutes a trading area, it has made an effort to standardize the documents that apply to the import and export of animals and to restrict the scope of exceptions so that they are not used for the purposes of violating the convention.

A 1997 Regulation⁶⁸ has been followed by a 2001 Regulation⁶⁹ that provides detailed rules for the implementation of the 1997 Regulation. Other legislation that concentrates on the trade in endangered species and products includes:

- the directive on the imports of skins of certain seal pups and products derived from them;⁷⁰

⁶³ Art. 9(3) & (4), *id.*

⁶⁴ Art. 12, *id.*

⁶⁵ Art. 3(2)(c), *id.*

⁶⁶ Commission of the European Communities, Fourth Annual Survey on the implementation and enforcement of Community environmental law 2002, at 13-14, SEC (2003) 804, 7.7.2003 [hereinafter Survey on Enforcement].

⁶⁷ See *infra* Section 3.3.

⁶⁸ Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein, OJ L 61/1, 03.03.1997. The 1997 regulation amended prior regulations.

⁶⁹ Council Regulation (EC) No 1808/2001 of 30 August 2001 laying down detailed rules concerning the implementation of Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein, OJ L 250/1, 19.09.2001.

⁷⁰ Council Directive 83/129/EEC of 28 March 1983 concerning the importation into Member States of skins of certain seal pups and products derived therefrom, OJ L 91/30, 09.04.1983.

- rules for importing whales and other cetacean products;⁷¹
- and the prohibition of the use of leghold traps and the imports of products coming from wild animals caught by leghold traps.⁷²

It is difficult to say whether the implementation of the CITES regime within the Community has been more successful than the implementation of the international convention. Without a doubt the prohibitory nature of the regime provides incentives for the creation of black markets. The European Environment Agency has noted that “though progress is noticeable, exploitation of wildlife for trade endangers native species, particularly in the Russian Federation and Central Asian countries. This is partly due to demand by western European citizens.”⁷³

Habitats Directive

The EC Habitats Directive⁷⁴ follows the list approach that the Ramsar and World Heritage Conventions have adopted.⁷⁵ An accomplishment of the directive involves establishment of an ecological network of special areas of conservation (SACs) in the European Union. These SACs⁷⁶ are added to the SPAs, provided for under the Birds Directive and, together with these areas, form the NATURA 2000 network.⁷⁷

The directive provides the criteria⁷⁸ according to which countries are to judge which of their habitats qualify as SACs⁷⁹ and which of their

⁷¹ Council Regulation (EEC) No 348/81 of 20 January 1981 on common rules for imports of whales or other cetacean products, OJ L 39/1, 12.02.1981.

⁷² Council Regulation (EEC) No 3254/91 prohibiting the use of leghold traps in the Community and the introduction into the Community of pelts and manufactured goods of certain wild animal species originating in countries which catch them by means of leghold traps or trapping methods which do not meet international humane trapping standards, OJ L 308/1, 09.11.1991.

⁷³ European Environment Agency: Europe's Environment: the third assessment – Summary 54 (2003) [hereinafter Third Assessment].

⁷⁴ Council Directive 92/43 EEC of 21 May 1992 on the conservation of natural habitats of wild fauna and flora, OJ L 206/7, 22.07.1992 [hereinafter Habitats Directive].

⁷⁵ See *infra* Section 3.2.

⁷⁶ Arts. 4(2) & 6, Habitats Directive, *supra* note 74.

⁷⁷ Art. 3(1), *id.*

⁷⁸ The criteria for the designation of habitats are prescribed in Annex III. The criteria prescribed in Annex III for the designation of species include: the size and density of the species in relation to the species population presented within a territory; the degree of conservation of the features of the habitat which are important for the species; the degree of isolation of the population in relation to the natural range of species; and the global assessment of the value of site for the conservation of species. *Id.*

⁷⁹ Art. 12, *id.*

species⁸⁰ need protection.⁸¹ Deterioration of natural habitats and disturbance of species are not allowed in SACs.⁸² Projects with negative environmental implications are to be allowed in these areas only “for imperative reasons of overriding public interest, including those of a social or economic nature.”⁸³ But in these cases states must ensure that compensatory measures are taken in order to safeguard the coherence of Natura 2000.⁸⁴

The implementation of the Habitats Directive has stumbled into issues similar to those encountered in the implementation of the Birds Directive. Implementation problems have to do with the insufficient designation of protected areas, the haphazard management of protected areas and the mismanagement of species under protection. The Court of Justice has been quite active in enforcing the directive.⁸⁵

2.2. Policies and Strategies for Forest Protection

The protection of forests in Europe is not considered an environmental matter *per se* but falls under the wider definition of natural resource management. This makes sense if one considers forests as an exploitable renewable resource and forestry as a trade similar to agriculture. In forestry, though, as it is the case with agriculture there are managerial issues that need to be addressed from an environmental perspective.

- *Forestry Strategy*

The Community strategy on forests⁸⁶ is based on the principle of subsidiarity.⁸⁷ It emphasizes the importance of coordination among the

⁸⁰ Annex II provides for animal and plant species of the Community whose protection requires the designation of special areas of conservation. Annex V lists species whose taking and exploitation needs specific management measures. Annex IV designates species that need strict protection. *See also* art. 1(e) & art. 14, *id.*

⁸¹ Art. 4, *id.*

⁸² Art. 6(2), *id.*

⁸³ Art. 6(4), *id.*

⁸⁴ The Commission has issued a decision regarding the information format that states must follow to include their sites in the Natura 2000 network. *See* Commission Decision 97/226/EC of 18 December 1996 concerning a site information format for proposed Natura 2000 sites, OJ L 107/1, 24.04.1997. Such information format must include: site identification, site location, site quality and importance, impacts of activities in and around the site. Survey on Enforcement, *supra* note 66, at 14.

⁸⁶ Council Resolution of 15 December 1998 on a forestry strategy for the European Union, OJ C 56/1, 26.02.1999.

⁸⁷ Para. 2(b), *id.*

Committees established under the different forest policies⁸⁸ and the importance of coordinating forestry policy with other Community policies such as: the Natura 2000 network, climate change and development of a Pan-European Program for the Protection of Biological and Landscape Diversity.⁸⁹

- *Protection of Forests Against Fire*

The purpose of legislation for the protection of forests against fire is to reduce the number of fire outbreaks and the extent of areas burnt particularly in the southern countries of the Community. This is to be achieved by the application of fire prevention and forest monitoring measures.

The first regulation adopted in 1992⁹⁰ classified the Community territory according to the degree of risk for forest fire. High-risk areas are areas where forest fire presents a serious threat to the ecological balance and the safety of persons and goods. In medium-risk areas, the fire is not a permanent or cyclical feature but it presents a significant threat to forest ecosystems.

States whose territory has been classified wholly or partly as high risk must forward their forest fire protection plans to the Commission as a precondition for financial assistance. These forest fire protection plans in order to be eligible for funding by the Community must include specific information as provided in the legislation (including the potential causes of fire and prevention and monitoring procedures).

- *Protection of Forests Against Atmospheric Pollution*

The regulations⁹¹ on the protection of forests against atmospheric pollution have the following objectives:

- to set up a forest observation network;

⁸⁸ Para.10, *id.*

⁸⁹ Paras. 11, 12 & 13, *id.*

⁹⁰ Council Regulation (EEC) No 2158/92 of 23 July 1992 on protection of the Community's forests against fire, OJ L 217/3, 31.07.1992. *See also* Regulation (EC) No 805/2002 of the European Parliament and of the Council of 15 April 2002 amending Council Regulation (EEC) No 2158/92 on protection of the Community's forests against fire, OJ L 132/1, 17.05.2002.

⁹¹ Council Regulation (EEC) No 3528/86 of 17 November 1986 on the protection of the Community forests against atmospheric pollution, OJ L 326/2, 21.11.1986. The Regulation was amended in 1989, 1992, 2001 and 2002. *See, e.g.*, Regulation (EC) No 804/2002 of the European Parliament and of the Council of 15 April 2002 amending Council Regulation (EEC) No 3528/86 on the protection of the Community's forests against atmospheric pollution, OJ L 132/3, 17.05.2002.

- to produce periodic inventories of the damages inflicted on forests by atmospheric pollution;
- to improve understanding of the effects of pollution and to improve the methods of measuring damage to forests;
- to devise methods for maintaining and restoring forests.

Member states must provide the Commission with annual reports. Based on these reports the Commission is to publish an annual activity report. The Commission is assisted by a Standing Forestry Committee and could fund projects executed by member states.

- *The European Forestry Information and Communication System (EFICS)*

The aim of EFICS is to provide objective and comparable information on the structure and operation of forestry sector in member states.⁹² The system has not functioned at its best yet. A report of the Commission issued in 1998 alludes to the inadequacies of the EFICS – namely the lack of harmonization of forestry statistics and the lack of concentration on forest ownership structures, forestry products and community forestry measures.⁹³

2.3. Strategies for the Protection of Biodiversity

Biodiversity Strategy

The Community has ratified the Biodiversity Convention⁹⁴ despite the controversy that has surrounded it.⁹⁵ In 1998 the Commission adopted a communication on Community's Biodiversity Strategy.⁹⁶ The communication urges the use of indicators as a benchmarking tool and supports the

⁹² Council Regulation (EEC) No 1615/89 of 29 May 1989 establishing a European Forestry Information and Communication System (EFICS), OJ L 165/2, 15.06.1989. *See also* Council Regulation (EC) No 1100/98 of 25 May 1998 amending Regulation (EEC) No 1615/89 establishing a European Forestry Information and Communication System (EFICS), OJ L 157/10, 30.05.1998.

⁹³ Report on the implementation of the European Forestry Information and Communication System (EFICS) established by the Council Regulation (EEC) No. 1615/89, COM (98) 173 final.

⁹⁴ *See* Council Decision 93/626/EEC of 25 October 1993 concerning the conclusion of the Convention on Biological Diversity, OJ L 309/1, 13.12.1993.

⁹⁵ The Convention on Biological Diversity, *see infra* note 99, has been surrounded by controversy especially with regard to the transfer of genetic resources and the equitable sharing of benefits with regard to the exploitation of such resources. *See generally* Louka, *supra* note 1, at 135.

⁹⁶ Communication from the Commission to the Council and to the Parliament on a European Community Biodiversity Strategy, COM (1998) 42.

European Community clearinghouse mechanism as an invaluable resource for exchanging information on biodiversity.

Following that communication, the Commission adopted in 2001 a Biodiversity Action Plan for the Conservation of Natural Resources. The Plan emphasizes the importance of the WFD as a tool for managing biodiversity in the river basins and the importance of integrating biodiversity into cross sectoral measures, for instance, the precautionary principle, environmental liability, environmental impact assessment, strategic impact assessment, eco-labeling and other such measures.⁹⁷

Strategy for Soil Protection

A Community strategy on soil protection does not exist at this point and the protection of soil is more or less a by-product of other national policies such as those that have to do with landfill disposal and incineration.

Given the pressures on soil caused by contamination, compaction, salinization, floods and landslides the Commission has communicated the need for a coherent strategy on soil.⁹⁸ The Commission has proposed the adoption of legislation on a Community information and monitoring system for soil threats.

3. THE INTERNATIONAL REGULATION OF BIODIVERSITY

International and regional instruments on biodiversity protection have a number of common features:

- they contain vague clauses so as to give states wide latitude in balancing environmental and development considerations;
- they focus on *in situ* conservation as the best means of biodiversity protection;
- they do not use human dignity values to evaluate biodiversity protection policies;
- they rarely mention gene banks or restoration;
- they impose restrictions and prohibitions but leave it up to states to decide about the appropriate level of enforcement;

⁹⁷ Commission Communication of 27 March 2001 to the Council and the European Parliament: Biodiversity Action Plans in the areas of Conservation of Natural Resources available online http://biodiversity-chm.eea.eu.int/convention/cbd_ec/strategy/BAP_html.

⁹⁸ Communication of 16 April 2002 from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of Regions – Towards a Thematic Strategy for Soil Protection, COM (2002) 179 final.

- they lack effective monitoring mechanisms to check the actual enforcement and implementation by states;
- they focus on specific regions, species and habitats. The Convention on Biological Diversity⁹⁹ was the first treaty to address biodiversity as a global matter. The Biodiversity Convention was adopted in 1992 during the UNCED conference.¹⁰⁰

This section starts with an analysis of the Biodiversity Convention since – despite its late adoption¹⁰¹ – the convention should be conceived as a framework convention that gives structure and contextual meaning to the more specific conventions.

3.1. Convention on Biological Diversity

The Biodiversity Convention¹⁰² is the first attempt to deal globally with biodiversity protection. The convention is a framework convention. It does not establish biodiversity protection standards but attempts to create the outline of a regime for biodiversity protection by focusing on *in situ* conservation and marginally on restoration and gene bank management. Declaration of national sovereignty over natural resources, intellectual property rights and technology transfers become the vehicles for the establishment of such a regime.

Like most framework conventions, the convention reflects the concerns of its framers rather than resolves them. The convention emphasizes that states must preserve biodiversity “as far as possible and as appropriate”¹⁰³ by undertaking measures that would protect biodiversity in nature or in gene banks. But the convention never enters into the details on what states must specifically do to protect biodiversity.

⁹⁹ Convention on Biological Diversity, June 5, 1992, *reprinted in* 31 I.L.M. 818 (1992) [hereinafter Biodiversity Convention].

¹⁰⁰ The United Nations Conference on Environment and Development (UNCED) that took place in 1992 provided the impetus for the adoption of new environmental instruments.

¹⁰¹ The convention was adopted in 1992 – much later than other specialized instruments for the protection of biodiversity.

¹⁰² *See supra* note 99.

¹⁰³ This terminology is repeated in many articles of the convention: arts 5, 6, 7, 8, 9, 10, 11, 14, Biodiversity Convention, *supra* note 99.

Nationalism

The convention places emphasis on national¹⁰⁴ and bilateral action based on the presumption that biodiversity can be protected more effectively at the national/bilateral level.¹⁰⁵ The convention clearly places biodiversity resources under national sovereignty¹⁰⁶ and most of its articles are replete with soft state obligations. Even in articles where the emphasis shifts to international cooperation, there are more allusions to national policies rather than international measures.¹⁰⁷

Biodiversity Protection Methods

- *In Situ Conservation*

The article on *in situ* conservation presents this type of conservation as the most fundamental method of protecting biodiversity. States must “as far as possible and as appropriate:” establish a system of protected areas;¹⁰⁸ develop guidelines for the selection and management of protected areas;¹⁰⁹ regulate and manage biological

¹⁰⁴ See, e.g., art. 6(a): “[e]ach Contracting Party shall, in accordance with its particular conditions and capabilities: Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity...” The Second Meeting of the Conference of the Parties adopted a number of decisions that shifted the focus of the operations of the Secretariat towards the national implementation of the convention. See Conference of the Parties to the Convention on Biological Diversity, Proposed Budget of the Trust Fund for the Convention on Biological Diversity, Sept. 14, 1996, UNEP/CBD/COP/3/33.

¹⁰⁵ Lyle Glowka et al., *A Guide to the Convention on Biological Diversity*, Environmental Policy and Law Paper No. 30 (IUCN, 1994).

¹⁰⁶ “Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.” See art. 15(1), Biodiversity Convention, *supra* note 99.

¹⁰⁷ Article 5 provides that state parties must cooperate for the preservation of diversity in areas outside the national jurisdiction (for example, the high seas) or on “other matters of mutual interest” (for example, transfrontier pollution, or the regulation of migratory species). See also art. 18 on Technical and Scientific cooperation. While paragraph 1 of article 18 emphasizes the need to promote technical and scientific cooperation through the appropriate national and international institutions, paragraph 2 of the same article emphasizes that “[e]ach Contracting Party shall promote technical and scientific cooperation with other Contracting Parties, in particular developing countries, in implementing this Convention, *inter alia*, through the development and implementation of *national policies*. In promoting such cooperation, special attention should be given to the development and strengthening of *national capabilities*, by means of human resources development and institution building [emphasis added].” *Id.*

¹⁰⁸ Art. 8(a), *id.*

¹⁰⁹ Art. 8(b), *id.*

resources both within and outside protected areas;¹¹⁰ promote “environmentally sound and sustainable development” in areas adjacent to protected areas;¹¹¹ and adopt the necessary regulatory measures for the protection of endangered species.¹¹² States must manage also and control the risks associated with the release of bio-engineered organisms¹¹³ and prevent the introduction of exotic species that may have adverse impacts on endemic species and habitats.¹¹⁴

The article on *in situ* conservation seems intentionally vague so as to give states some latitude in designing their conservation programs. *In situ* conservation involves often preservation of protected areas based on violent evictions of people that inhabit these areas.¹¹⁵ It would have been desirable, therefore, if the provisions on *in situ* conservation included a clause that ensured that *in situ* conservation should not be pursued by violating human dignity and human rights.

It must be acknowledged, however, that the Biodiversity Convention is one of the first international treaties¹¹⁶ to recognize the rights of indigenous peoples and local communities to their “knowledge,” “innovations” and “practices.”¹¹⁷ The Biodiversity Convention provides that the consent of indigenous peoples is needed to utilize their knowledge and that there should be equitable sharing of benefits derived from such knowledge.

The provisions regarding the sharing of benefits derived from the knowledge of indigenous peoples are the most controversial of the convention. The requirement of equitable sharing was adopted as a response to a number of international incidents in which multinational corporations have been accused of taking advantage of the knowledge of indigenous people in the development of innovative medicines and products. As a response to these incidents, developing countries have restricted the access to their plant resources and other genetic resources

¹¹⁰ Art. 8(c), *id.*

¹¹¹ Art. 8(e), *id.*

¹¹² Art. 8(k), *id.*

¹¹³ Art. 8(g), *id.*

¹¹⁴ Art. 8(h), *id.*

¹¹⁵ See Louka, *supra* note 1, at 61.

¹¹⁶ Other post-UNCED agreements contain references to indigenous peoples. These references, however, sound still paternalistic. According to the Rio Declaration, indigenous peoples have a role to play in environmental conservation because “of their knowledge and traditional practices.” But it is not the peoples themselves – it is the state that must support the “identity, culture and interests” of indigenous peoples. See Principle 22, Rio Declaration on Environment and Development, June 5, 1992, *reprinted in* 31 I.L.M. 874 (1992).

¹¹⁷ Art. 8(j), Biodiversity Convention, *supra* note 99.

and have demanded the sharing of profits from the exploitation and commercialization of such resources. In addition, they have demanded intellectual property rights for products developed by taking advantage of the knowledge of indigenous peoples residing in their territory.¹¹⁸

- *Gene Bank Development*

Since the convention reflects rather than attempts to alter prevalent perceptions, gene bank development plays a marginal role in biodiversity protection.¹¹⁹ The convention explicitly provides that states must adopt measures of gene bank development “for the purpose of complementing *in situ* measures.”¹²⁰ Gene bank development and other means of *ex situ* biodiversity protection become, therefore, a supplement to *in situ* management. It is true that gene bank development has not been used extensively for the protection of wild species. However, gene bank development certainly presents multiple possibilities for the protection of endangered species or useful wild species and it is worth exploring given the costs of nature reserve management in terms of human dignity and human rights.

The convention provides also that *ex situ* conservation measures should take place preferably in the country of origin¹²¹ reflecting again the current nationalistic attitude toward germplasm conservation. Since most genetic resources are located in developing countries and gene banks are located in developed countries, the convention calls for an increase in the number of gene banks in the developing world. The convention proposes also that it is best for each country to have its own gene banks,¹²² a too limited and not very practicable approach to germplasm preservation. Given the economies of scale offered by developing regional and even international gene banks, it is not cost-efficient for many developing countries to keep their own gene banks. A successful example of a regional gene bank is the Nordic gene bank. While countries in other regions may not be on the friendly terms that would allow for regional gene bank development, overall, regional and international cooperation is more cost-efficient and, thus, worth pursuing. In the area of gene bank development, self-sufficiency is costly, and collaboration is certainly a more cost-effective means to conserve germplasm.¹²³

¹¹⁸ For an analysis of the disputes between developed and developing countries on plant genetic resources, see Louka, *supra* note 1, at 135.

¹¹⁹ Art. 9, Biodiversity Convention, *supra* note 99.

¹²⁰ *Id.*

¹²¹ Art. 9(a), *id.*

¹²² Art. 9(b), *id.*

¹²³ Donald L. Plucknett et al., *Gene Banks and the World's Food* 191 (1987).

- *Restoration*

The convention refers explicitly to restoration but it does so sporadically within the provisions of *in situ* and *ex situ* conservation. Clearly, according to the framers of the convention, restoration does not qualify as an independent conservation method that could make a drastic difference in international conservation efforts.¹²⁴ This shortsighted view of restoration is unfortunate since restoration could revitalize many degraded areas and thus reduce the pressure from biodiversity-rich areas. The framers of the convention could have dedicated, at least, an article of the convention solely to restoration and could have underlined that restoration is an equivalent partner of *in situ* conservation.

Implementation

The parties must submit to the Conference of Parties the measures taken to implement the convention and an evaluation of the effectiveness of such measures in accomplishing the objectives of the convention.¹²⁵ Such reporting is bound to be difficult not only because the objectives of the convention are far from clear but also because reporting on the effectiveness of measures to preserve biodiversity must be based on an accurate assessment of existing biodiversity. Assessments of the current state of biodiversity – let alone “accurate assessments” – are sparse and inconsistent. Moreover, methodologies for measuring biodiversity have yet to be perfected. Current methods can provide an idea about the state of biodiversity resources but could not be relied upon for a comprehensive assessment. Because of the lack of an accurate methodology, most financial assistance to developing countries supports projects called “enabling activities” – that is the preparation of the first national biodiversity strategies and action plans that aim to assess the current status of biological diversity. The Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)¹²⁶ has already re-emphasized that the primary focus of assessment of biological diversity must be at the country

¹²⁴ Art. 8(f): “[e]ach Contracting Party shall, as far as possible and as appropriate:...Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies.” See Biodiversity Convention, *supra* note 99.

Art. 9(c): “Each Contracting Party shall, as far as possible and as appropriate, and predominantly for the purpose of complementing *in situ* measures:...Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions.” *Id.*

¹²⁵ See arts. 26 & 23(4)(a), *id.*

¹²⁶ The SBSTTA was established under article 25 of the Convention on Biological Diversity. *Id.*

level. However, since biodiversity does not recognize national borders and marine biodiversity is situated outside national jurisdictions, some regional and international assessment will become indispensable in the future.¹²⁷

Most current methodologies for the assessment of biodiversity are based on the measurement of species. Species, though, are an inadequate unit for the measurement of biodiversity. In some instances the assessment of biodiversity may be more accurate in terms of phyla and families. The identification of ecosystems and habitats where biodiversity resides is even more problematic than determining the appropriate unit for measuring biodiversity. There is no universal definition of what a habitat or an ecosystem is. Attempts to classify ecosystems are based on the species that occur in them or on the physical characteristics (wetlands, forests) of the area or a combination of both. Such classifications, though, are in most cases incomplete descriptions of diverse ecosystems.¹²⁸ Moreover, it is not sufficient to identify species and habitats. Monitoring how species and habitats change over time is equally important.¹²⁹

Genetic diversity, which is the focus of Biodiversity Convention, is even more difficult to quantify. Methods to measure genetic diversity require many samples and analyses by trained personnel capable of using sophisticated laboratory techniques. Because the techniques are expensive and the results produced difficult to interpret, genetic diversity is used rarely as a measure of biodiversity. The United Nations Environment Program (UNEP) has recommended that data on biodiversity must be collected first at the species, subspecies or population level. Only biodiversity resources of economic value must be examined at the genetic level.¹³⁰

A widespread and cheap method to estimate biodiversity at the species level is the use of indicators. The number of species even in a small area may be so great that identifying and inventorying all species are impracticable. Certain species, therefore, can be used as indicators for the biodiversity in the whole area.¹³¹ The development of a common set of indicators could be instrumental in ensuring uniform and comparable reporting from state parties and could facilitate the administration of data

¹²⁷ Conference of the Parties to the Convention on Biological Diversity, Third Meeting, Appraisal of the SBSITTA Review of Assessments of Biological Diversity and Advice on Methodologies for Future Assessments 4, Sept. 13, 1996, UNEP/CBD/COP/3/13.

¹²⁸ *Id.* at 6-8.

¹²⁹ *Id.* at 8-9.

¹³⁰ *Id.* at 9.

¹³¹ *Id.* at 10.

under the convention.¹³² The SBSTTA¹³³ has recommended that indicators are a feasible method for the assessment of biological diversity.

Article 7 of the Biodiversity Convention deals with the identification and monitoring of biodiversity at the national level according to a list of categories included in Annex I of the convention.¹³⁴ Some of these categories are quite vague and states will not be able to engage in identification unless some guidance is provided at the international level.¹³⁵

Parties have to identify and monitor the activities that may have adverse impacts on biodiversity resources.¹³⁶ Identifying such activities is not easy. A change in the natural environment may be the result of many causes. It is difficult to disentangle the effects produced by natural causes from those provoked by human impacts. Moreover, the same human impacts may be appraised as both beneficial and detrimental depending on the standpoint of the observer. A human impact may adversely affect certain species but it may also contribute to the overall resilience of an ecosystem.¹³⁷

The identification of human impacts on the environment should preferably take place before a project is undertaken. The purpose of the Environmental Impact Assessment (EIA) is exactly that: to identify the effects of human activities on nature. The convention explicitly provides that state parties must introduce "as far as possible and as appropriate" environmental impact assessments for state projects likely to have

¹³² *Id.* at 11.

¹³³ Art. 25, Biodiversity Convention, *supra* note 99.

¹³⁴ According to article 7: "[e]ach Contracting Party shall, as far as possible and as appropriate... (a) identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I. The categories included in Annex I are:

"1. Ecosystems and habitats: containing high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes;

2. Species and communities which are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; or social, scientific or cultural importance; or importance for research into conservation and sustainable use of biological diversity, such as indicator species; and

3. Described genomes and genes of social, scientific or economic importance." *Id.*

¹³⁵ Conference of the Parties to the Convention on Biological Diversity, Third Meeting, Options for Implementing Article 7 of the Convention 4, Sept. 15, 1996, UNEP/CBD/COP/3/12 [hereinafter Assessment of 7].

¹³⁶ Art. 7(c), Biodiversity Convention, *supra* note 99.

¹³⁷ Assessment of 7, *supra* note 135, at 9.

significant adverse impacts on biological diversity.¹³⁸ Initially EIAs were viewed as potentially useful instruments of conservation. The implementation of EIAs, however, by the World Bank, the OECD and the European Union has revealed that EIAs have not fulfilled their potential.¹³⁹ Some of the problems with the current execution of EIAs include lack of analysis of alternative projects, mild mitigation measures, absence of monitoring and implementation and lack of institutional capacity for competent EIA preparation. Public participation is marginal also, especially when such participation involves affected populations and local NGOs. EIAs have been ineffectual especially with regard to biodiversity-related projects since the response of ecosystems and habitats to external impacts is difficult to predict.¹⁴⁰

3.2. Conventions on Species and Habitats

Bern Convention

The purpose of the Bern Convention¹⁴¹ is to promote national policies for the protection of wild flora, wild fauna and natural habitats; to integrate conservation into national planning; and to promote education and disseminate information on the need to conserve species and their habitats.¹⁴²

The Bern Convention includes three Annexes. The exploitation of wild flora species included Annex I is totally prohibited. Annex II prohibits “the deliberate” destruction of wild fauna species. Annex III species are to be regulated to keep their populations out of danger.

States can ask for exceptions from the provisions of the treaty “in the interests of public health and safety, air safety or other overriding public interests.”¹⁴³ Other exceptions include the prevention of serious damage

¹³⁸ Art. 14(a), Biodiversity Convention, *supra* note 99.

¹³⁹ Conference of the Parties to the Convention on Biological Diversity, Third Meeting, Note by the Executive Secretary, The Availability of Additional Financial Resources 13, October 6, 1996, UNEP/CBD/COP/3/37.

¹⁴⁰ *Id.*

¹⁴¹ The Convention on the Conservation of European Wildlife and Natural Habitats was adopted in 1979 and entered into force in 1982 under the auspices of the Council of Europe. The convention has today forty-five contracting parties including thirty member states of the Council of Europe, the European Community and four African states. See Convention on the Conservation of European Wildlife and Natural Habitats, Sept. 19, 1979, European Treaty Series No. 104, *reprinted in* IV European Conventions and Agreements 181 (Council of Europe ed., 1993).

¹⁴² Art. 3, *id.*

¹⁴³ Art. 9(1), *id.*

to crops, livestock, forests and fisheries or other forms of property and the service of research and education.¹⁴⁴ While these exceptions seem to be reasonable, their wide interpretation could dilute the regulatory character of the treaty.

A network of Areas of Special Conservation Interest (ASCIs) called Emerald network has been established under the convention. The network includes Central and Eastern European countries and EU states. The Emerald network was launched in 1989.

The Standing Committee established under the convention plays an important role in the implementation of the convention. The Standing Committee issues recommendations and guidelines. States are to follow up the guidelines with reports on their implementation measures. A quite unique implementation procedure has been established under the convention for the examination of complaints¹⁴⁵ that could become quite effective in deterring infringements to the convention.

Further recommendations to enhance the role of the Berne Convention were made under the Monaco Declaration.¹⁴⁶ The declaration stated that the Standing Committee should increase its efforts to coordinate the divergent strategies for the protection of biodiversity, for instance, the Natura 2000 program and the EECNET¹⁴⁷ and that the appropriate coordination mechanisms should be established with the Convention on Biological Diversity.

¹⁴⁴ *Id.*

¹⁴⁵ The Secretariat examines the complaints sent to the Standing Committee for failure of state parties to comply with the goals of the convention. The Secretariat informs the state parties concerned and decides whether or not to intervene based on the seriousness of the complaint.

If the Secretariat decides that action is appropriate it informs the contracting parties concerned. The Secretariat then decides, based on the answer received, whether to place the complaint on the agenda of the Standing Committee.

If a matter is put on the agenda of the Standing Committee, the Standing Committee will have to make a decision whether to pursue it. If it decides to pursue the case, the Committee has to make a choice between issuing a recommendation or conducting an on-the-spot inquiry. Depending on the outcome of the recommendation or on-the-spot inquiry, the Standing Committee may decide to close the file. If a state continues to violate the convention consistently, the Standing Committee may consider inviting one or more contracting parties to put the matter to arbitration.

¹⁴⁶ Council of Europe, Directorate of Environment and Local Authorities, Monaco Declaration on the role of the Bern Convention in the implementation of worldwide international instruments for the protection of biodiversity, 1994.

¹⁴⁷ See *infra* note 205.

Bonn Convention

The Bonn Convention on the Conservation of Migratory Species of Wild Animals (CMS) was adopted in 1979.¹⁴⁸ The purpose of the convention is the conservation of migratory species including birds, mammals, reptiles and fish. The convention requires the immediate protection of endangered migratory species included in Appendix I and the conclusion of additional agreements for the protection of migratory species included in Appendix II.¹⁴⁹

States must ensure that species protected under Annex I are provided appropriate habitats, including habitat restoration if feasible, that would reduce the risk of species' extinction.¹⁵⁰ In addition state parties are to remove or minimize the circumstances that would impede or prevent the migration of species and are to reduce or control the factors that may endanger species.¹⁵¹

Taking of animals listed in Annex I is subject to exceptions that include taking for:

- scientific purposes;
 - the purpose of enhancing the propagation and survival of species;
 - the purpose of accommodating the needs of traditional subsistence.¹⁵²
- Taking is allowed also under other extraordinary circumstances.

To restrict the latitude provided to states under these broad exceptions, the convention emphasizes that the content of exceptions must be precise and limited in space and time and that it should not disadvantage species. States, if they decide to apply the exceptions, must notify the Secretariat as soon as possible.

Annex II species are to be protected by specific agreements.¹⁵³ The convention provides guidelines on what these agreements are to include.¹⁵⁴

¹⁴⁸ Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, *reprinted in* 19 I.L.M. 15 (1980) [hereinafter *Migratory Species Convention*]. The convention entered into force in 1983. Today the convention includes seventy-nine parties from five geographic regions: Africa (25), America and the Caribbean (6), Asia (9), Oceania (3), Europe (36). *See* Guide to the Convention on the Conservation of Migratory Species of Wild Animals (Secretariat of the UNEP, Jan. 2002) [hereinafter *Guide*].

¹⁴⁹ Arts. III & IV, *Migratory Species Convention*, *id.*

¹⁵⁰ Art. III(4) (a), *id.*

¹⁵¹ Art. III(4) (b)-(c), *id.*

¹⁵² Art III(5), *id.*

¹⁵³ Art. IV *id.*

¹⁵⁴ Art. V, *id.*

The agreements that have been adopted under the convention attempt to preserve: seals in the Wadden Sea,¹⁵⁵ bats in Europe,¹⁵⁶ small cetaceans in the Baltic and North Seas,¹⁵⁷ cetaceans of the Mediterranean and the Black Seas,¹⁵⁸ the Siberian crane,¹⁵⁹ slender-billed curlews,¹⁶⁰ the African-Eurasian migratory waterbirds¹⁶¹ and marine turtles.¹⁶²

The convention is administered by the Conference of the Parties,¹⁶³ which is assisted by a Secretariat¹⁶⁴ and a Scientific Council.¹⁶⁵ States, in order to implement the convention, need to establish a focal point, usually an individual within a national institution, who ensures that communication between the national and international authorities is maintained at all times.¹⁶⁶

¹⁵⁵ The agreement was adopted after an epidemic that wiped out thousands of seals in 1988. Today seals seem to be rebounding due to the measures taken. *See* Guide, *supra* note 148, at 5.

¹⁵⁶ Agreement on the Conservation of Bats in Europe (EUROBATS). The agreement was adopted in 1991. Bats are protected strictly under this agreement. For instance, the deliberate capture, killing or keeping of bats is prohibited unless licensed by a competent authority. *Id.* at 7.

¹⁵⁷ Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS). The agreement was adopted in 1991. The Advisory Committee, established at the first meeting of the parties, has already stimulated international cooperation that includes cooperation on the reduction of by-catch by fishing nets. *Id.* at 6.

¹⁵⁸ Agreement on the Conservation of Cetaceans of the Mediterranean and the Black Seas (ACCOBAMS). The agreement was adopted in 1996 and entered into force in 2001. Three Black Sea countries (Bulgaria, Georgia and Romania) and seven Mediterranean countries (Albania, Croatia, Malta, Monaco, Morocco, Spain and Tunisia) have ratified the agreement so far. This is the first agreement of its kind to bring countries of the two regions together on an environmental problem. *Id.* at 9.

¹⁵⁹ Memorandum of Understanding concerning Conservation Measures for the Siberian Crane adopted in 1993 and revised in 1998. The agreement is successful in terms of at least helping to maintain the population stable. *Id.*

¹⁶⁰ Memorandum of Understanding concerning Conservation Measures for the Slender-billed Curlew adopted in 1994. By 2001 eighteen range states signed the agreement as well as the Birdlife International, the International Council for Game and Wildlife Conservation and the UNEP/CMS Secretariat. The slender-billed curlew is a migratory shorebird estimated to have declined to less than 50 individuals. *Id.* at 10.

¹⁶¹ The Agreement on the Conservation of African Eurasian Migratory Waterbirds (AEWA) was adopted in 1995. It entered into force in 1999. Despite the late entry into force a number of countries and the GEF have already devoted funds for its implementation. *Id.* at 8.

¹⁶² *See* Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia adopted in 2001. *See also* Memorandum of Understanding on the Conservation of Marine Turtles of the Atlantic Coast of Africa adopted in 1999. *Id.* at 12.

¹⁶³ Art. VII, Migratory Species Convention, *supra* note 148.

¹⁶⁴ Art. IX, *id.*

¹⁶⁵ Art. VIII, *id.*

¹⁶⁶ Guide, *supra* note 148, at 4.

Overall the CMS Convention has not enjoyed the attention devoted to other international conventions such as the Biodiversity Convention. This is because the convention is a highly specialized tool and many of the issues it addresses are not politically charged (which cannot be said for the Biodiversity Convention).¹⁶⁷

World Heritage Convention and Ramsar Convention

The World Heritage Convention¹⁶⁸ is based on the idea of declaring exceptional areas as World Heritage Sites so as to encourage their protection. The World Heritage Convention includes two lists: the “World Heritage List” where nature reserves are to be listed, and the “List of World Heritage in Danger.” State consent is required for the inclusion of a state territory in any of these lists.¹⁶⁹ The purpose of the convention is to direct international cooperation to the conservation of natural heritage sites through the training of specialists, interest-free loans and the establishment of a World Heritage Fund that provides financial assistance to countries in need.¹⁷⁰

The Ramsar Convention follows the list structure as well.¹⁷¹ The convention provides that each state must designate suitable wetlands¹⁷² for inclusion in the List of Wetlands of International Importance.¹⁷³ Land development has caused a considerable reduction in the surface area of wetlands in many places of the world including Europe. The Conference of the Parties has already designated 750 sites for conservation – more than 500,000 kilometers (the size of France or Kenya) of wetland. It is expected though that rates of wetland loss will be higher in the future especially in Eastern Europe. The primary culprit for the destruction of wetlands is agriculture demonstrating again the importance of integrating environmental considerations into other sectors of the economy.

¹⁶⁷ See *supra* note 99.

¹⁶⁸ UNESCO Convention for the Protection of the World Cultural and Natural Heritage, Nov. 21, 1972, *reprinted in* 11 I.L.M. 1358 (1972).

¹⁶⁹ Art. 11, *id.*

¹⁷⁰ See art. 6(1), art. 7, art. 22 & art. 15, *id.* The fund established under the convention is very small and cannot meet the needs of developing countries.

¹⁷¹ Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), Feb. 2, 1971, *reprinted in* 996 U.N.T.S. 245.

¹⁷² The definition of wetlands is quite broad. According to article 1, “[f]or the purpose of this Convention wetlands are areas of marsh, fens, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.” *Id.*

¹⁷³ Art. 2(5), *id.*

European Landscape Convention

The European Landscape Convention¹⁷⁴ was adopted under the auspices of the Council of Europe in 2000. The convention was the outcome of the work of Europe's Congress of Local and Regional Authorities (CLRAE). The CLRAE started a process of drafting a Landscape Convention in 1994 and completed it in 1997. It then submitted the convention to the Council of Europe for adoption. The Council of Europe adopted the convention in 2002.

The purpose of the convention is to provide a framework for the protection of all types of landscapes in Europe through the cooperation of national, regional, local authorities and NGOs.

The convention defines landscapes as areas resulting from the interaction of natural and human factors.¹⁷⁵ Immediately this definition distinguishes landscapes from nature reserves. Nature reserves, as seen above, have been defined as areas virtually undisturbed by humans. The definition of landscape proposed in the convention establishes a view of landscapes that evolve with time and human needs.

The convention distinguishes between landscape protection, landscape management and landscape planning. Landscape protection¹⁷⁶ has to do with the conservation of landscapes and must include both cultural and natural aspects. Landscape management has to do with the regular upkeep of landscapes as they evolve to meet, *inter alia*, social and economic needs.¹⁷⁷ Landscape planning has to do with the creation of new landscapes and the policies for reshaping and restoring current landscapes.¹⁷⁸ The convention establishes also what is called "landscape quality objective." This quality objective must be formulated based on the aspirations of the public with regard to desirable landscape features.¹⁷⁹

The convention's scope is quite large since it covers the entire territory of state parties and all kinds of landscapes – natural and urban landscapes all over land, inland water and marine areas. The convention is not only focused on preserving outstanding landscapes but also on revitalizing

¹⁷⁴ European Landscape Convention, July 19, 2000, European Treaties Series (ETS) no. 176.

¹⁷⁵ Art. 1(a), *id.*

¹⁷⁶ Art. 1(d), *id.*

¹⁷⁷ Art. 1(e), *id.*

¹⁷⁸ Art. 1(f), *id.*

¹⁷⁹ Art. 1(c), *id.*

degraded landscapes emphasizing thus the role of restoration in the European environmental agenda.¹⁸⁰

The convention clearly provides that landscape protection can be accomplished through national measures but has left the level at which these measures must be taken to the discretion of states. The convention is one of the first treaties to suggest that the principle of subsidiarity must apply for its implementation. The principle of subsidiarity allows for the involvement of local and regional authorities if this would be the best for the implementation of the convention.¹⁸¹

The convention encourages state parties to:

- recognize landscapes in their legislation;
- implement landscape policies through specific measures;
- establish procedures for the participation of general public, local and regional authorities;
- integrate landscape management into regional and town planning policies, cultural, environmental, agricultural, social and economic policies.¹⁸²

States are required to take specific measures that concentrate on awareness raising, training and education, identification and assessment of landscapes, establishment of landscape quality objectives and implementation.¹⁸³ Training and education are of paramount importance since the contribution of specialized professionals is a pre-requisite for the implementation of any coherent landscape policy. Also the identification of landscapes, their characteristics and pressures that transform them as well as the attitudes of the public would constitute a useful baseline against which one could judge the future evolution of landscapes.¹⁸⁴

International cooperation is encouraged through the establishment of transfrontier landscapes¹⁸⁵ but also through technical and scientific assistance, the exchange of landscape specialists and the exchange of information.¹⁸⁶

¹⁸⁰ Art. 2, *id.*

¹⁸¹ Art. 4, *id.*

¹⁸² Art. 5, *id.*

¹⁸³ Art. 6, *id.*

¹⁸⁴ *Id.*

¹⁸⁵ Art. 9, *id.*

¹⁸⁶ Art. 8, *id.*

An innovative element of the convention is that, instead of creating another committee, it relies on the organs of the Council of Europe for implementation. Such organs involve the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP) and the Cultural Heritage Committee (CC-PAT).¹⁸⁷

The convention provides for a landscape award given by the Council of Europe to local or regional authorities or NGOs that introduce measures for landscape protection that have a lasting effect and can serve as examples for other authorities throughout Europe.¹⁸⁸

3.3. Trade in Species and the CITES Convention

The CITES Convention¹⁸⁹ was drafted in 1963 by the International Union for the Conservation of Nature as a result of concerns that trade in wildlife was the cause of species' extinction. The convention was eventually adopted in 1973 and entered into force in 1975.

Structure

The structure of the CITES Convention is the same as the structure of the other conventions that deal with the threat of species loss. The convention lists species in three Annexes. Annex I includes the most endangered species. Annex II includes the species threatened to become endangered. And Annex III includes endangered species in the territory of the parties to the convention. The convention prohibits trade in species included in Annex I, regulates trade in species included in Annex II and allows states to bring endangered species in their territory under Annex III of the convention.

Species are traded based on import and export permit requirements that become less demanding the less strict the classification of species is. For instance, species classified in Appendix I are subject to both an import and an export permit while species classified in Appendix II are subject only to an export permit.¹⁹⁰

¹⁸⁷ Art. 10, *id.*

¹⁸⁸ Art. II, *id.*

¹⁸⁹ Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), Mar. 6, 1973, *reprinted in* 12 I.L.M. 1085 (1973).

¹⁹⁰ Arts. III and IV, *id.*

Monitoring/Enforcement

The enforcement of the convention is left upon member states. States are required to take measures to punish those who violate the convention and to confiscate items that are illegally traded or possessed.¹⁹¹ States must maintain detailed records on the trade in species and share them with the Secretariat of the convention through annual reports that summarize the trade.¹⁹² States meet every two to three years as Conference of Parties to review the implementation of the convention and examine proposals to amend the lists of species in Appendix I and Appendix II.

The work of the Conference of Parties is facilitated by four permanent committees: the Standing Committee, the Animals Committee, the Plants Committee¹⁹³ and the Nomenclature Committee.¹⁹⁴ The purpose of the Standing Committee is to provide assistance in implementing the convention and in overseeing the Secretariat's budget. One of the major issues that the Standing Committee has dealt with was whether to re-open trade in elephant products.

The enforcement of the CITES Convention has encountered many problems. Many of the exceptions¹⁹⁵ to the convention, for instance, the tourist-souvenir exception¹⁹⁶ and the trans-shipment exception¹⁹⁷ and state reservations¹⁹⁸ have hampered monitoring and enforcement. Exceptions have been used to smuggle species under the pretense that the exceptions apply. Reservations¹⁹⁹ have allowed states to opt out of the provisions of

¹⁹¹ Art. VIII(1)(a)&(b), *id.*

¹⁹² Art. VIII(7)(a), *id.*

¹⁹³ The Animals Committee and Plants Committee provide specialized expertise regarding the species that are under CITES control.

¹⁹⁴ The Nomenclature Committee was established in recognition of the need to standardize names used for animal and plant species.

¹⁹⁵ For the exceptions to the convention and how they have been used to breach the convention, see Simon Lyster, *International Wildlife Law* 256-62 (1985).

¹⁹⁶ Art. VII(3) provides that the convention does not apply to specimens that have personal or household effects. Some state parties apply this exception liberally. *Id.* at 258.

¹⁹⁷ Art. VII(1) provides that the convention does not apply "to the transit or trans-shipment of specimens through or in the territory of a Party while the specimens remain in Customs control." This provision has been abused since middle-men can import species from non-parties, hold them "in transit" in a state party (without, thus, having to obtain a permit) and then export them to a non-party. *Id.* at 257.

¹⁹⁸ According to article XXIII(3), states that have taken reservations on certain items are considered non-parties with regard to those items. Reservations can be damaging since reserving parties often trade legally with non-parties and illegally with state parties violating the letter and the spirit of the convention. *Id.* at 263.

¹⁹⁹ Arts. XXIII, X, CITES Convention, *supra* note 189.

the convention and have legitimized trade otherwise considered illegal under the convention.

These loopholes, cultural beliefs that have kept up demand and a fearless network of poachers, supported by the poor of the developing world, have undermined the effectiveness of the convention. Some provisions of the convention, especially those regarding bans on the trade of species and their products have hampered people in the developing world by sabotaging local wildlife management systems. The convention has provided also an excuse to persecute those called “poachers” – in reality poor people seeking to participate in the wealth effect generated by the black markets propagated by the convention.²⁰⁰

Problems with Implementation

The CITES Convention has been unable to stem species’ loss. On the contrary it has perpetuated a lucrative black market in which many species are now traded. There are two basic reasons why the CITES Convention has not fulfilled its potential.

- *States are reluctant to commit the resources to back up the enforcement and monitoring of the convention.* Given the number of species protected and the methods that have been invented to smuggle such species monitoring and enforcement resources have to be substantial to support any meaningful implementation of the convention. Such resources have not been available on a consistent basis. When resources have been available they have been used to apprehend and punish the poor poachers who operate on the ground rather than to dismantle the international organized crime networks.
- *The framers of the convention underestimated the persistent demand for certain species and their products.* This persistent demand is due to cultural attitudes that are resistant to change. Many East-Asian countries, for instance, are avid importers of body parts of endangered species, such as tigers and rhinoceros, because of their importance in traditional medicine.²⁰¹ European citizens’ desire for exotic products boosts the global demand for endangered species. Environmentalists, for instance, have accused European Union countries for importing illegally

²⁰⁰ See Louka, *supra* note I, at 66.

²⁰¹ The depletion of bears is blamed on the trade in bear gallbladders used in the East for medicinal purposes. The use of the gallbladders, though, is not frivolous since it has been proved that gallbladders have medicinal value. Gallbladders produce ursodeoxycholic acid that is used in traditional Chinese medicine to cure intestinal, liver and cardiac diseases. See Peter Gerner, *Bears Vanishing to Feed Ethnic Medicine Market*, Chicago Tribune, Feb. 4, 1994, at C4.

Indonesian timber.²⁰² Eastern European accession countries are considered heavens for poachers.²⁰³

3.4. Pan-European Biodiversity Strategy

The Biodiversity Strategy was first proposed during a conference held in Maastricht in 1993.²⁰⁴ The outcome of the Conference was the development of the European Ecological Network (EECONET) or Pan-European Ecological Network (PEEN). The purpose of the EECONET is to promote cooperative action for the protection of habitats across Europe. The advantages of the EECONET are:

the focus on natural and semi-natural ecosystems rather than sites or species; the promotion of a Pan-European framework of objectives; and the integration of biological diversity objectives into other policy areas.²⁰⁵

The strategy establishes an international framework for cooperation and the consolidation of current schemes and programs with regard to the protection of biodiversity and landscape management. The Strategy was endorsed by the third Pan-European Conference of Ministers of the Environment for Europe held in Sofia in 1995.

Today the Pan-European Biological and Landscape Diversity Strategy (PEBLDS)²⁰⁶ is a regional process that concentrates on the protection of biodiversity in Europe based on the approach adopted by the Convention on Biological Diversity. The PEBLDS, after each Conference of Parties of the Biodiversity Convention²⁰⁷ and of a SBTTA meeting²⁰⁸ analyzes the

²⁰² It is estimated that the EU imports around € 1 billion of illegally harvested tropical timber every year. See Environmentalists Slam EU Inaction over Illegal Indonesian Timber, Environmental Investigation Agency, July 7, 2003 available online <http://www.eia-international.org/cgi/news/news.cgi>.

²⁰³ The wildlife road to EU membership, WWF Press Release, Oct. 22, 2002 available online http://www.panda.org/news_facts/newsroom/press_releases.

²⁰⁴ Conference on Conserving Europe's Natural Heritage: Towards a European Ecological Network, Maastricht, Nov. 9-12, 1993, (the proceedings of the Conference have been published in Bennett, *supra* note 7).

²⁰⁵ The EECONET is funded by the EECONET Action Fund (EAF). The purpose of the EAF is to fund semi-governmental organizations, for instance, national parks and non-governmental organizations to buy or lease important natural sites that contribute to the Pan-European Ecological Network. In countries where buying and leasing is not possible the Fund supports the implementation of urgent management and restorative measures.

²⁰⁶ See Meeting of the Enlarged Bureau of the Council for the Pan-European Biological and Landscape Diversity Strategy, Rolling Work Programme on the Pan-European Biological and Landscape Diversity Strategy, Oct. 30, 2001, STAR-CO(2001) 25 (prepared by the Joint Secretariat of the Strategy of UNEP and the Council of Europe).

²⁰⁷ See *supra* note 99.

²⁰⁸ See *supra* note 126.

recommendations promulgated and prioritizes them with respect to their relevance for Europe.

In addition to the pursuit of goals established by the Biodiversity Convention²⁰⁹ an interesting element of the strategy is that it focuses on landscapes. An issue the strategy attempts to address is the integration of landscape diversity into the mechanisms for protecting and enhancing the natural environment. The strategy addresses the management of natural environment as an economic resource and the integration of conservation considerations into the social and economic policy.²¹⁰

The purpose of the strategy is not to establish new programs and initiatives but to provide the coordinating framework for existing programs and activities. The strategy aims to:

- remove or reduce the threats to Europe's biological and landscape diversity;
- increase the resilience of European biological and landscape diversity;
- increase public awareness on issues of biological and landscape diversity. These aims have to be achieved within twenty years.²¹¹

The strategy is based on certain principles:

- the principle of careful decisionmaking;
- the principle of avoidance (to avoid adverse environmental effects by introducing the correct procedures into environmental impact assessments);
- the precautionary principle;
- the principle of translocation (activities that are extremely harmful to biological diversity in one area would have to be transferred to other areas where they would have less impact);
- the principle of ecological compensation (harmful effects on biodiversity by a user must be balanced with compensatory conservation measures);
- the principle of ecological integrity (the habitats and process on which the survival of species depends should be protected);
- the principle of restoration (where possible biological and landscape diversity must be restored);
- the principles of best available technology and best environmental practice;

²⁰⁹ See *supra* note 99.

²¹⁰ See The Clearing House for the Pan-European Biological and Landscape Diversity Strategy, Strategy Guide endorsed in the third Ministerial Conference "Environment for Europe," 1995, available online <http://www.strategyguide.org/fulltext.html>.

²¹¹ *Id.*

- the polluter pays principle;
- the principles of public participation and public access to information.

4. CONCLUSION

The goal of biodiversity protection is the protection of ecosystems and their interaction. But since there is only speculation on how exactly ecosystems function, species and habitats protection becomes the vehicle for biodiversity protection. The efforts of the Community to deal with biodiversity protection parallel similar international efforts. The Birds Directive, for instance, is an offshoot of the Bonn Convention and the Habitats Directive emanates from the Bern Convention.

Despite what seems to be a blind following of international instruments, though, the European Community is insisting on a “European” view of biodiversity protection with tolerance and expectation for human involvement. The European Community is extensively involved in the Pan-European Biodiversity Strategy that attempts to bring the biodiversity policies of all European states closer together. It remains to be seen how these policies would evolve and whether they would make any difference in the protection of biodiversity in Europe.

CONCLUSION

Diverse and opposing dynamics have affected the evolutionary development of Community environmental law:

- resistance to centralization versus proceduralization;
- uniformity versus customization;
- federalization versus internationalization.

These competing dynamics have generated a creative tension for EC environmental law as it is pulled in three directions: upwards (international), downwards (national) and sideways (federal).

The Community has tried to resolve this tension by using as an axis integration. The increasing proceduralization of environmental law that almost dictates states' performance, even under differentiating standards, points to the direction of federalization. In other cases, however, the Community has been sidetracked from the goal of integration by what seem to be persuasive international developments.

The European Union is establishing gradually a federal environmental law for Europe. This law is developed extensively in some areas – such as that of air and water pollution with increasingly customized goals controlled by a number of unifying procedures.

In other areas, the sophistication of Community law remains but the blind adoption of international principles could torpedo integration. Such is the case with waste transfers. Biodiversity protection is a less developed area in terms of federal emancipation. It presents, however, creative strands that, although influenced by international developments, are not a copy of them.

As the Community tries to find its identity among different conceptual designs the tug-of-war among internationalism, federalism, nationalism (and sub-nationalism) is bound to continue. This study proposes that, in its attempt to find a coherent voice in environmental matters, the Community must continue to put first integration. An integration based on the principle of solidarity and the cultivation of a common affinity that goes beyond the quotidian of environment/free trade.

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